DESIGN CRITERIA

1. BUILDING CODE: OREGON STRUCTURAL SPECIALITY CODE (OSSC), 2007 EDITION
2. LIVE LOAD:
   A. FLOOR LIVE LOAD:
      1) ASSEMBLY AREAS: 100 PSF (REDUCIBLE)
   B. ROOF LIVE LOAD: 20 PSF
3. SNOW LOAD:
   A. ROOF SNOW LOAD: 25 PSF
4. WIND DESIGN DATA:
   A. BASIC WIND SPEED: Vs = 80 MPH
   B. WIND IMPORTANCE FACTOR: I = 1.0
   C. OCCUPANCY CATEGORY: II
   D. WIND EXPOSURE CATEGORY: B
5. EARTHQUAKE DESIGN DATA:
   A. BASIC SEISMIC RESISTING SYSTEM: LIGHT FRAMED WALLS SHEATHED w/ WOOD STRUCTURAL
   B. OCCUPANCY CATEGORY: II
   C. SEISMIC DESIGN CATEGORY: D
   D. SITE CLASS: D
   E. SEISMIC IMPORTANCE FACTOR: I = 1.0
   F. RESPONSE MODIFICATION FACTOR: R = 6.5
   G. SPECTRAL RESPONSE ACCELERATION:
      SHORT PERIOD: Ss = 0.937
      1 SECOND PERIOD: S1 = 0.337
   H. DESIGN SPECTRAL RESPONSE ACCELERATION:
      SHORT PERIOD: Sds = 0.700
      1 SECOND PERIOD: Sd1 = 0.387
   I. SEISMIC RESPONSE COEFFICIENT: Cs = 0.108

GENERAL

1. THESE GENERAL NOTES APPLY UNLESS SPECIFICALLY NOTED OTHERWISE.
2. ALL CONSTRUCTION, TESTING AND INSPECTING SHALL CONFORM TO THE OREGON STRUCTURAL SPECIALITY CODE (OSSC), 2007 EDITION.
3. STANDARDS REFERENCED IN THESE NOTES SHALL BE THE LATEST EDITION UNLESS OTHERWISE NOTED. DETAILS SHALL BE APPLIED TO EVERY LIKE CONDITION WHETHER OR NOT THEY ARE REFERENCED IN EVERY INSTANCE. FOR CONDITIONS NOT SPECIFICALLY SHOWN, PROVIDE DETAILS SIMILAR TO THOSE SHOWN.
4. VERIFY ALL EXISTING FEATURES AND CONDITIONS (DIMENSIONS, ELEVATIONS, ETC.) UPON WHICH THESE DRAWINGS RELY.
5. OMISSIONS OR DISCREPANCIES BETWEEN THE VARIOUS ELEMENTS OF THE CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT OR STRUCTURAL ENGINEER BEFORE PROCEEDING WITH THE WORK.
6. REFER TO ARCHITECTURAL PLANS FOR FINISH FLOOR ELEVATIONS, FLOOR DEPRESSIONS, OPENINGS, SLOPES, DRAINS, CURBS, PADS, EMBEDDED ITEMS, NON-BEARING PARTITIONS, STAIR HANGERS, ETC. REFER TO MECHANICAL AND ELECTRICAL PLANS FOR SLEEVES, OPENINGS, AND HANGERS FOR PIPES, DUCTS, AND EQUIPMENT. COORDINATE THESE ITEMS WITH STRUCTURAL WORK.
7. DO NOT SCALE DRAWINGS. COORDINATE DIMENSIONS WITH ARCHITECTURAL DRAWINGS.
8. DURING THE CONSTRUCTION PERIOD, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF PERSONNEL AND PROPERTY ON AND AROUND THE JOBSITE. THE CONTRACTOR SHALL PROVIDE ADEQUATE SHORING, BRACING, GUYS, ETC. IN ACCORDANCE WITH ALL NATIONAL, STATE, AND LOCAL SAFETY ORDINANCES.
10. METHODS, PROCEDURES, AND SEQUENCE OF CONSTRUCTION ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO MAINTAIN AND ENSURE THE INTEGRITY OF THE STRUCTURE AT ALL STAGES OF CONSTRUCTION.

FOUNDATION

1. FOUNDATION DESIGN IS BASED ON ALLOWABLES AS SET FORTH IN IBC TABLE 1804.2
2. SOILS ENGINEER SHALL VERIFY CONDITION AND/OR ADEQUACY OF ALL SUB GRADES, FILLS AND BACK FILLS BEFORE PLACEMENT OF FOOTINGS, SLABS, FILLS AND BACK FILLS, ETC.
3. SIDES OF FOUNDATIONS SHOWN STRAIGHT ARE FORMED. FOUNDATIONS POURED AGAINST THE EARTH AT CONTRACTOR'S OPTION REQUIRE THE FOLLOWING PRECAUTIONS:
   A. SIDES OF EXCAVATION MUST BE VERTICAL (OVER POURING AND MUSHROOMING NOT ALLOWED).
   B. CONTRACTOR SHALL BE RESPONSIBLE FOR CLEAN UP OF SOIL SLOUGHING BEFORE, DURING, AND AFTER POUR.
4. CONTRACTOR TO PROVIDE FOR DE-WATERING OF EXCAVATION FOR EITHER SURFACE WATER, GROUND WATER OR SEEPAGE IF REQUIRED.
5. BACK FILL OVER EXCAVATED FOOTINGS WITH CONCRETE OF SAME DESIGN STRENGTH AS FOOTING CONCRETE.
6. NO CONCRETE SHALL BE POURED IN ANY FOUNDATION UNTIL EXCAVATION HAS BEEN REVIEWED BY THE SOILS ENGINEER.
7. FOUNDATION TYPE: CONTINUOUS AND SPREAD FOOTINGS
8. DESIGN ALLOWABLES:
   A. SOIL BEARING: 1500 PSF (DL+LL), 2000 PSF (DL+LL+WIND/EQ)
   B. LATERAL BEARING: 100 PSF/FT
9. STEP CONTINUOUS FOOTINGS AT VARYING ELEVATIONS PER TYPICAL DETAIL. SLOPED FOOTINGS ARE PROHIBITED.
10. ALL FOOTINGS SHALL BEAR ON FIRM, UNDISTURBED SOIL OR COMPACTED STRUCTURAL FILL. TOP OF FOOTINGS SHOWN ON THE DRAWINGS ARE MINIMUM AND SHALL BE LOWERED AS REQUIRED TO REMOVE SOFT AND LOOSE MATERIAL AS DIRECTED BY THE SOILS ENGINEER. NOTIFY ENGINEER OF LOWERED FOOTINGS.

CONCRETE

1. ALL CONCRETE SHALL BE MIXED AND PLACED IN ACCORDANCE WITH ACI 318-05. USE MIXES WITH A MAXIMUM AGGREGATE SIZE APPROPRIATE FOR FORM AND REBAR CLEARANCES TO BE ENCOUNTERED IN ACCORDANCE WITH ACI RECOMMENDATIONS.
2. THE PROPOSED MATERIALS AND MIX DESIGN SHALL BE FULLY DOCUMENTED AND REVIEWED BY THE OWNERS TESTING LABORATORY. RESPONSIBILITY FOR OBTAINING THE REQUIRED DESIGN STRENGTH IS THE CONTRACTOR'S. SUBMIT TEST DATA ON EACH PROPOSED MIX FOR REVIEW IN ACCORDANCE WITH OSSC SECTION 1905.6. MIX DESIGNS SUBMITTED WITHOUT THE REQUIRED TEST DATA WILL BE RETURNED WITHOUT REVIEW.
3. CONCRETE SHALL HAVE THE FOLLOWING 28 DAY STRENGTHS(F'C):
   FOUNDATION & SLAB ON GRADE: 3000 PSI NORMAL WEIGHT - MAX. W/C RATIO = 0.48
   ALL OTHER CONCRETE: 3000 PSI NORMAL WEIGHT - MAX. W/C RATIO = 0.48
4. SCHEDULING OF WORK MAY REQUIRE DESIGN STRENGTH IN SHORTER PERIODS OF TIME (LESS THAN 28 DAYS)
5. PORTLAND CEMENT SHALL CONFORM TO ASTM C 150 TYPE I OR II [TYPE V FOR REGIONS WITH HIGH SULFIDES]
6. AGGREGATE FOR NORMAL WEIGHT CONCRETE SHALL CONFORM TO ALL REQUIREMENTS AND TESTS OF ASTM C 33 AND PROJECT SPECIFICATIONS.
7. CONSTRUCTION JOINTS SHALL BE THOROUGHLY ROUGHENED (1/4" AMPLITUDE) BY SAND BLASTING OR MECHANICAL MEANS. CLEAN BEFORE POUR. LOCATION TO BE APPROVED BY THE STRUCTURAL ENGINEER. SUBMIT LOCATION PLAN FOR ALL PROPOSED JOINTS NOT INDICATED ON DRAWINGS FOR APPROVAL PRIOR TO WORK.
8. ALL CONCRETE TO BE REINFORCED UNLESS SPECIFICALLY NOTED "NOT REINFORCED".
9. CONDUIT OR PIPE SIZE (O.D.) SHALL NOT EXCEED 30% OF SLAB THICKNESS, AND SHALL BE PLACED FOUR DIAMETERS MINIMUM APART, UNLESS SPECIFICALLY DETAILED OTHERWISE.
10. EXPOSED PROJECTING CORNERS OF BEAMS, WALLS, COLUMNS, ETC., SHALL BE FORMED WITH A 3/4" CHAMFER, UNLESS OTHERWISE NOTED ON ARCHITECTURAL DRAWINGS AND SPECIFICATIONS.
11. PRIOR TO PLACING CONCRETE, THE CONTRACTOR SHALL ENSURE THAT ALL REINFORCING AND EMBEDMENTS, INCLUDING COLUMN ANCHOR BOLTS ARE PROPERLY LOCATED AND SECURELY TIED IN PLACE.
12. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING CURING CONCRETE FROM FREEZING AND HOT WEATHER PER ACI 306.1 AND ACI 305 RESPECTIVELY.

REINFORCING STEEL

1. ALL REINFORCING STEEL SHALL BE PLACED IN CONFORMANCE WITH "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE", ACI 318-05, AND "ACI DETAILING MANUAL", ACI SP-66(04), AS MODIFIED BY THE PROJECT DRAWING AND SPECIFICATIONS.
2. REINFORCING STEEL:
   A. DEFORMED BARS: ASTM A 615 GRADE 60
   B. WELDED REINFORCING: ASTM A 706
3. ALL LAP SPLICES SHALL BE CLASS B SPLICE AND 2'-0" MINIMUM UNLESS OTHERWISE NOTED ON SCHEDULE, MAINTAIN 1 1/2" CLEAR MINIMUM BETWEEN PARALLEL BARS.
4. ALL REINFORCING STEEL AND EMBEDMENTS TO BE HELD SECURELY IN PLACE PRIOR TO PLACING CONCRETE. PROVIDE SUFFICIENT SUPPORTS TO ALLOW WALKING ON REINFORCEMENT.
5. WELDING OF REINFORCING IS PROHIBITED UNLESS APPROVED BY STRUCTURAL ENGINEER.
6. REINFORCEMENT SHALL BE PLACED IN RELATIVE POSITION SHOWN ON THE DRAWINGS. NO SPLICES IN REINFORCING WILL BE PERMITTED UNLESS SHOWN IN THE STRUCTURAL DRAWINGS OR APPROVED BY THE STRUCTURAL ENGINEER.
7. PROVIDE FOUNDATION DOWELS TO MATCH SIZE AND SPACING OF WALL OR COLUMN REINFORCEMENT. EXTEND DOWELS A LAP SPLICE LENGTH INTO WALL OR COLUMN AND TERMINATE WITH STANDARD HOOK 3" ABOVE BOTTOM OF FOOTING, UNLESS OTHERWISE NOTED.
8. REINFORCING STEEL SHALL HAVE THE FOLLOWING CONCRETE COVER, BUT NOT LESS THAN (1) BAR DIAMETER UNLESS OTHERWISE NOTED:
   A. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH: 3"
   B. CONCRETE FORMED AND EXPOSED TO EARTH OR WEATHER:
      1) #6 THROUGH #11 BARS: 2"
      2) #5, W31 OR D31 WIRE, AND SMALLER: 1 1/2"
   C. CONCRETE NOT EXPOSED TO WEATHER OR NOT IN CONTACT WITH THE GROUND:
      1) SLABS AND WALLS: 3/4"
      2) BEAMS AND COLUMNS PRIMARY REINFORCEMENT, TIES, STIRRUPS, SPIRALS: 1 1/2"

STRUCTURAL STEEL

1. ALL STRUCTURAL STEEL TO BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH AISC SPECIFICATIONS.
2. STEEL GRADES:
   A. BOLTS: ASTM A 307 FOR WOOD CONNECTIONS.
   B. ANCHOR BOLTS: ASTM F 1554, GRADE 36.
3. ALL STEEL EXPOSED AT EXTERIOR LOCATIONS SHALL BE GALVANIZED UNLESS OTHERWISE NOTED.
4. EPOXY ANCHORS: DIAMETER AS NOTED IN DETAILS. MINIMUM EMBEDMENT = 8 DIAMETERS. INSTALLATION SHALL BE IN ACCORDANCE WITH PRODUCT ICBO REPORT. APPROVED EPOXIES ARE SET-HIGH STRENGTH EPOXY AS MANUFACTURED BY SIMPSON STRONGTIE (ICC ESR 1772), EPCON A7 ADHESIVE AS MANUFACTURED BY ITW RAMSET/REDHEAD (ICBO REPORT NO. 5560), AND HY-150 AS MANUFACTURED BY HILTI, INC (ICBO REPORT 5193).

FRAMING LUMBER

1. FRAMING LUMBER GRADES: 2005 WWPA GRADING RULES. STRESS VALUES SHOWN ARE BASE MEMBER VALUES.
   A. 2x4 STUDS (NON BEARING PARTITIONS) CONST. GRADE: D.FIR/LARCH, S.DRY, Fb=1000
   B. STRUCTURAL LIGHT FRAMING No. 2: D.FIR/LARCH, S.DRY, Fb=900
   C. STRUCTURAL JOISTS & PLANKS (INCLUDES 2x6 & 2x8 STUDS): No. 2, D.FIR/LARCH, S.DRY, Fb=900
   D. 3x & 4x MEMBERS: No. 1, D.FIR/LARCH, S.GRN, Fb=1000
   E. POSTS & TIMBERS: No. 1, D.FIR/LARCH, S.GRN, Fb=1200
2. WOOD I-JOISTS AND ENGINEERED COMPOSITE LUMBER:
   A. WOOD I-JOISTS:
      1) SIZES SHOWN ARE AS MANUFACTURED BY TRUSJOIST. MATERIALS, FABRICATION, HANDLING AND INSTALLATION SHALL BE PER NATIONAL EVALUATION SERVICE INC. REPORT NO. PFC-4354 AND TRUSJOIST WRITTEN RECOMMENDATIONS.
      2) JOISTS BY OTHER MANUFACTURERS MAY BE USED PROVIDED THEY HAVE THE SAME DEPTH AND EQUIVALENT ICBO APPROVED LOAD CAPACITIES AND STIFFNESS.
      3) FLANGES OF I-JOIST SHALL BE MANUFACTURED FROM LVL LUMBER.
   B. LAMINATED VENEER LUMBER (LVL):
      1) MANUFACTURED IN ACCORDANCE WITH NATIONAL EVALUATION SERVICE INC. REPORT NO. ER-4979
      2) MODULUS OF ELASTICITY: E = 1900 KSI
      3) BENDING STRENGTH: Fb = 2600 PSI
      4) SHEAR STRENGTH: Fv = 285 PSI
   C. LAMINATED STRAND LUMBER (LSL):
      1) MANUFACTURED IN ACCORDANCE WITH NATIONAL EVALUATION SERVICE INC. REPORT NO. ER-4979
      2) MODULUS OF ELASTICITY: E = 1700 KSI
      3) BENDING STRENGTH: Fb = 2600 PSI
      4) SHEAR STRENGTH: Fv = 400 PSI
      5) AXIAL STRENGTH: Fc = 2380 PSI
   D. PARALLEL STRAND LUMBER (PSL):
      1) MANUFACTURED IN ACCORDANCE WITH NATIONAL EVALUATION SERVICE INC. REPORT NO. ER-4979
      2) MODULUS OF ELASTICITY: E = 2000 KSI
      3) BENDING STRENGTH: Fb = 2900 PSI
      4) SHEAR STRENGTH: Fv = 290 PSI
      5) AXIAL STRENGTH: Fc = 2900 PSI
3. PRESSURE TREATED LUMBER:
   A. ALL WOOD MEMBERS EXPOSED TO WEATHER AND SUBJECT TO DECAY SHALL BE PRESSURE TREATED DOUGLAS FIR-LARCH WITH ACZA OR ACA TREATMENT PER THE CURRENT AMERICAN WOOD-PRESERVERS ASSOCIATION STANDARDS. PRESSURE TREATMENT ON WOOD SHALL BE ACQ-C, ACQ-D (CARBONATE), CA-B, OR CBA-A WITH NO AMMONIA AND THE ACTUAL RETENTION LEVELS SHALL BE LESS THAN 0.40 PCF FOR ACQ, 0.41 PCF FOR CBA-A, OR 0.21 PCF FOR CA-B. IF AMMONIA IS USED AND/OR THE RETENTION LEVELS ARE HIGHER THAN THAT SPECIFIED, THEN STAINLESS STEEL CONNECTORS AND NAILS MUST BE USED THROUGHOUT. REFER TO SIMPSON'S GUIDELINES IN THE CURRENT SIMPSON CATALOG.

FRAMING LUMBER (CONTINUED)

4. PLYWOOD SHEATHING:
   A. ALL PANELS TO BE OF MINIMUM 5 PLY CONSTRUCTION. EACH PANEL SHALL BEAR THE QUALITY TRADEMARK STAMP OF THE "AMERICAN PLYWOOD ASSOCIATION".
   B. GRADES:
      1) ROOFS:
         a) 5/8", "C-D", GROUP 1, SPAN INDEX 40/20, EXPOSURE 1
      2) FLOORS:
         a) 1 1/8", STURD-I-FLOOR, SPAN RATING 48" o.c., EXTERIOR
         b) FLOORS SHALL BE NAILED & GLUED PER APA GLUED FLOOR SYSTEM REQUIREMENTS. GLUE SHALL CONFORM TO PERFORMANCE SPECIFICATION AFG-01. FOLLOW MANUFACTURE'S SPECIFIC APPLICATION RECOMMENDATIONS.
         c) MAXIMUM PANEL SPANS WITHOUT PANEL EDGE SUPPORT:
            1. SPAN INDEX 32/16: 28"
            2. SPAN INDEX 40/20: 32"
            3. SPAN INDEX 48/24: 36"
            4. SPAN INDEX 60/32: 48"
            5. PANEL EDGE SUPPORT SHALL BE EITHER TONGUE AND GROOVE EDGES, OR PANEL EDGE CLIPS MIDWAY BETWEEN SUPPORTS (EXCEPT TWO EQUALLY SPACED BETWEEN SUPPORTS 48" o.c.), OR LUMBER BLOCKING.
      3) WALLS:
         a) 1/2", "C-D", SPAN INDEX 32/16, EXPOSURE 1, OR AS SPECIFIED IN THE SHEARWALL SCHEDULE
   C. MINIMUM NAILING REQUIREMENTS:
      1) NAIL SIZE: USE 0.131" DIAMETER x 2 1/4" GUN NAIL FOR ROOF DIAPHRAGM AND SHEARWALLS. USE 0.131" DIAMETER x 3" GUN NAIL FOR FLOOR DIAPHRAGM.
      2) SPACING: SEE DRAWINGS FOR SPECIAL NAILING REQUIREMENTS:
         a) PANEL EDGES @ 6" o.c.
         b) INTERIOR BEARINGS @ 12" o.c.
         c) ENGINEERED COMPOSITE LUMBER BEAMS & SHEAR COLLECTORS @ 6" o.c.
      3) PROVIDE 2x SOLID BLOCKING AT PANEL EDGES OF WALL SHEATHING.
      4) SHEATHING FASTENERS SHALL BE DRIVEN FLUSH BUT SHALL NOT FRACTURE THE FACE PLY.
   D. PANEL LAYOUT:
      1) LONG DIMENSION OF PANEL TO BE PERPENDICULAR TO FRAMING MEMBERS, EXCEPT PANELS AT WALLS MAY BE INSTALLED WITH LONG DIMENSION PARALLEL TO STUDS.
      2) END JOINTS IN ADJACENT RUNS SHALL BE STAGGERED 4 FEET.
      3) MINIMUM PANEL WIDTH SHALL BE 12".
      4) EDGES OF ALL PANELS LESS THAN 24" WIDE SHALL BE BACKED BY BLOCKING (2x4 MIN SIZE).
5. JOIST HANGERS AND FRAMING CONNECTORS:
   A. DETAILS ARE SHOWN WITH SIMPSON "STRONG-TIE" CONNECTORS. NAILING SHALL BE PER ICBO RESEARCH RECOMMENDATIONS TO ACHIEVE FULL ICBO APPROVED LOADS. THE MAXIMUM GAP BETWEEN END OF JOIST AND FACE OF SUPPORTING MEMBER SHALL BE 1/8".
   B. USE THE FOLLOWING JOIST HANGERS WHERE A MEMBER FRAMES INTO THE SIDE OF ANOTHER FRAMING MEMBER UNLESS OTHERWISE NOTED:
      1) ROOF FRAMING MEMBERS WITH SPAN OVER 20 FEET: (FACEMOUNT HANGERS)

TJI/L65 JOISTS:	"MIU3" SERIES HANGER
TJI/L90 JOISTS:	"MIU4" SERIES HANGER
1 3/4" MICROLLAM	"HU" SERIES HANGER
3 1/2', 5 1/4" OR 7" PSL	"HU" SERIES HANGER

      2) FLOOR FRAMING MEMBERS AND ROOF FRAMING MEMBERS WITH SPAN LESS THAN 20 FEET: (TOP FLANGE HANGERS)

TJI/L65 JOISTS:	"MIT3" SERIES HANGER
TJI/L90 JOISTS:	"MIT4" SERIES HANGER
3 1/2" LSL OR PSL	"MIT" SERIES HANGER
5 1/4" OR 7" PSL	"HB" SERIES HANGER

   C. TOP FLANGE HANGERS AT I-JOISTS TO BE INSTALLED WITH 2 1/2" WIDE WEB STIFFENERS AND WITH (4) SIMPSON "N10" NAILS INSTALLED AT I-JOIST AND (4) "N10" NAILS INSTALLED TO FACE OF SUPPORTING MEMBER.
   D. SUBSTITUTIONS MUST BE APPROVED BY THE ARCHITECT AND HAVE ICBO APPROVED LOAD CAPACITIES EQUAL TO OR GREATER THAN THE SIMPSON "STRONG-TIE" CONNECTORS. WHEN HANGER IS IN CONTACT WITH PT WOOD, USE SIMPSON ZMAX OR SS AND SS OR HDG NAILS.
6. SILL PLATES AND ANCHOR BOLTS:
   A. SILL PLATES SHALL BE DOUGLAS FIR/LARCH NO.2 AND PRESSURE TREATED.
   B. SILL PLATES ARE TO BEAR FULLY ON THE TOPS OF THE FOUNDATION WALLS AND/OR SLABS. THE TOPS OF ALL FOUNDATION WALLS/SLABS SHALL BE SMOOTH AND LEVEL. THE TOPS OF FOUNDATION WALLS/SLABS SHALL BE CONSIDERED LEVEL WHEN THE MAXIMUM DEVIATION FROM GRADE IS +/- 1/8 INCH AND THE DEPRESSION BETWEEN HIGH SPOTS IS NOT GREATER THAN 1/8 INCH ALONG A 10 FOOT STRAIGHT EDGE.
   C. ANCHOR BOLTS TO BE ASTM F 1554, GRADE 36 WITH STANDARD BOLT HEAD OR EQUAL DEFORMATION IN THE EMBEDDED PORTION. CUT THREADS ARE REQUIRED AT ANCHOR BOLTS.
   D. THE SPACING AND SIZE OF ANCHOR BOLTS SHALL BE AS SHOWN IN DETAILS.
   E. LOCATE AN ANCHOR BOLT AT 6" MINIMUM TO 12" MAXIMUM FROM ENDS OF EACH PIECE. EACH LENGTH OF PLATE TO HAVE A MINIMUM OF TWO ANCHOR BOLTS.
   F. INSTALL EXTRA ANCHOR BOLTS AS REQUIRED, WHERE PLATE IS CUT OR NOTCHED.
   G. SILL PLATES SHALL NOT BE DAPPED AT BOLT HEADS.
7. FABRICATION OF TIMBER CONNECTORS:
   A. FABRICATION SHALL BE IN ACCORDANCE WITH 2005 EDITION "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION".
      1) A WASHER OR METAL PLATE SHALL BE PROVIDED BETWEEN THE WOOD AND THE BOLT HEAD AND/OR NUT.
      2) BOLT HOLES SHALL BE 1/16" MAXIMUM OVERSIZE.
      3) LAG BOLTS:
         a) LEAD HOLES SHALL BE DRILLED FOR LAG BOLTS:
            SHANK PORTION = SHANK DIAMETER.
            THREADED PORTION = 70% OF SHANK DIAMETER.
         b) LAGS BOLTS SHALL BE INSTALLED USING A PROPER WRENCH.
8. NAIL LAMINATED COLUMNS:
   A. PLYWOOD FILLERS TO BE FULL WIDTH OF STUD AND FULL DEPTH OF BEAM.
   B. NAIL LAMINATE EACH PLY WITH 16d NAILS @ 12" o.c. AND BOLTED TOGETHER WITH 5/8" DIAMETER BOLTS AT 6'-0" o.c. MAXIMUM WITH THE FIRST BOLTS A MAXIMUM OF 12" FROM EACH END OF THE COLUMN.
   C. NAIL PLYWOOD WALL SHEATHING TO COLUMN WITH 8d @ 12" o.c. EA EDGE.
   D. NO NOTCHING SHALL BE ALLOWED.
9. BLOCKING / BRIDGING:
   A. PROVIDE FULL DEPTH BLOCKING PER TRUS JOIST BETWEEN JOISTS AND RAFTERS OVER ALL SUPPORTS.
   B. PROVIDE 2x SOLID BLOCKING BETWEEN STUDS AT MID HEIGHT IN WALLS OVER 8'-0" TALL.
10. NOTCHING AND DRILLING FRAMING MEMBERS:
   A. THE CONTRACTOR IS CAUTIONED ABOUT THE DRILLING AND NOTCHING OF STUDS, PLATES, JOISTS, BEAMS, COLUMNS, AND OTHER FRAMING MEMBERS.
   B. THE CONTRACTOR SHALL CONSULT WITH THE STRUCTURAL ENGINEER BEFORE NOTCHING OR DRILLING ANY FRAMING MEMBERS NOT SPECIFICALLY DETAILED IN STRUCTURAL DRAWINGS.

STRUCTURAL
REGISTERED PROFESSIONAL ENGINEER
15,386
OREGON
MAY 30, 1991
EDWIN T. DEAN
EXPIRATION DATE: 12-31-07

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Job # ND767.00

CONSULTANTS

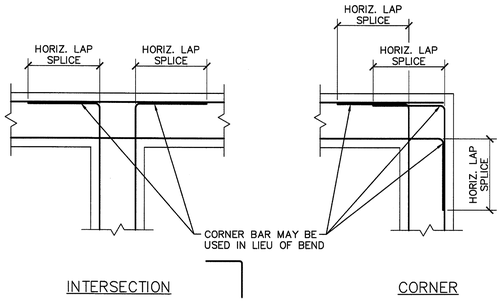
TIGARD SENIOR CENTER
RENOVATION AND ADDITION
8815 SW O'MARA ST.
TIGARD, OREGON 97223

STRUCTURAL NOTES

PROJECT NAME

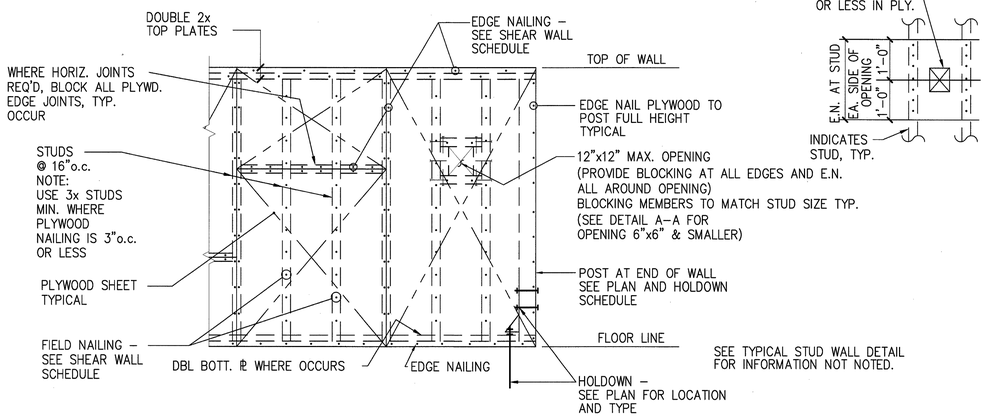
DATE: 09.17.07
CHECK: ETD
DRAWN BY: DKB
PROJECT: 207037

S1.0



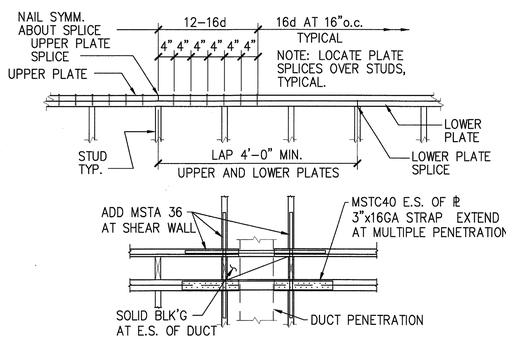
9 S1.1 FOOTING REINFORCEMENT

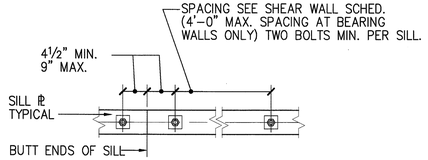
1/2"=1'-0"



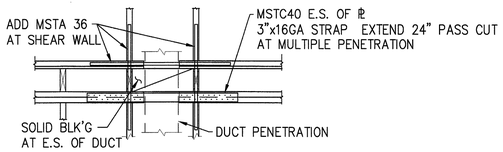
6 S1.1 SHEAR WALL SCHEDULE

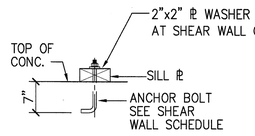
N.T.S.





PLAN – SILL PLATE





ELEVATION – STUD WALL TOP PLATE SPLICES

SECTION

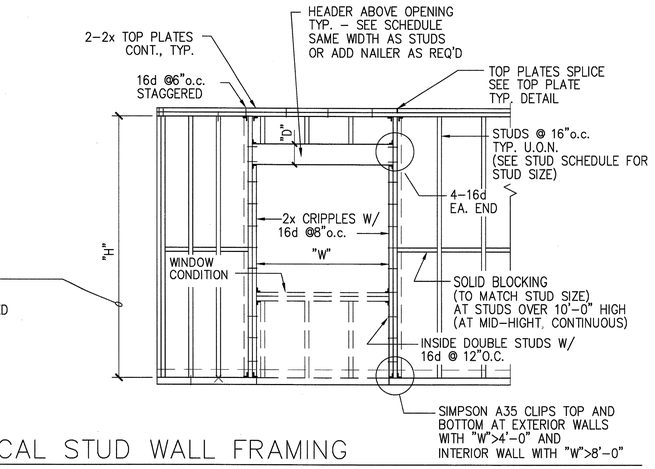
NOTES: 1. APPLY DETAIL TO WOOD PLATES OF ALL STRUCTURAL STUD WALLS.
2. BEFORE PLACING BOLTS, CHECK LOCATIONS OF ALL POSTS, MULLIONS, STUDS, ETC. TO INSURE THAT SUCH WILL NOT FALL AT BOLT LOCATION.

NOTE: 3X SILL IS REQUIRED AT SHEAR WALL w/10d @ 3" E.N. OR TIGHTER SPACING USE 2X SILL ELSEWHERE AT CONTRACTOR'S OPTION

11 S1.1 TOP AND BOTTOM PLATE OF STUD WALL

N.T.S.

HEADER SCHEDULE	
"D" HEADER DEPTH	"W" WIDTH OF OPENING
4x8	TO 36" MAX.
4x10	3'–1" TO 6'–0"
4x12	6'–1" TO 9'–0"



10 S1.1 ELEVATION – TYPICAL STUD WALL FRAMING

N.T.S.

SHEAR WALL SCHEDULE [1, 2]										
DESCRIPTION AND NAILING					SHEAR TRANSFER [3]					SHEAR CAPACITY
MARK (SEE PLAN)	SHEATHING (NOMINAL THK.) [4]	3x FRAMING [5]	PLYWOOD NAILING [6] EDGE NAIL'G (E.N.)	PLYWOOD NAILING [6] FIELD NAIL'G (F.N.)	TOP PL CONN. A35 (450#/A35)	TOP PL CONN. LTP4 (670#/LTP4)	SOLE PL CONN. SDS¼x4½ (345#/SDS)	SOLE PL CONN. LTP5 (595#/LTP5)	SILL PL CONN. ⅝"ø [7] ANCHOR BOLT	
6	½" C–D	–	10d @6"o.c.	10d @12"o.c.	16"	24"	12"	23"	48"	310 PLF
4	½" C–D	YES	10d @4"o.c.	10d @12"o.c.	12"	16"	8"	12"	32"	460 PLF
3	½" STRUCT I	YES	10d @3"o.c.	10d @12"o.c.	8"	12"	6"	10"	24"	665 PLF
2	½" STRUCT I	YES	10d @2"o.c.	10d @12"o.c.	6"	8"	4½"	8"	16"	870 PLF
4/2	½" STRUCT I BOTH SIDES [8]	YES	10d @4"o.c.	10d @12"o.c.	5"	7"	4"	7"	16"	1020 PLF
3/2	½" STRUCT I BOTH SIDES [8]	YES	10d @3"o.c.	10d @12"o.c.	–	6"	3"	5"	12"	1330 PLF
2/2	½" STRUCT I BOTH SIDES [8]	YES	10d @2"o.c.	10d @12"o.c.	–	4½"	2"	–	8"	1740 PLF

NOTES:
1. STUDS IN ALL SHEARWALLS TO BE DOUGLAS FIR SPACED AT NO MORE THAN 16"o.c.. ALL PANEL EDGES SHALL BE FASTENED TO FRAMING.
2. ALL PANEL EDGES IN SHEARWALLS SHALL BE BLOCKED. PROVIDE BLOCKING IN SHEAR WALL PER DETAIL "ELEVATION – PLYWOOD SHEAR WALL"
3. ALL SHEAR TRANSFER HARDWARE SHALL BE BY SIMPSON STRONG–TIE AND SHALL BE INSTALLED PER THE MANUFACTURER'S SPECIFICATIONS. FOR SHEAR TRANSFER NAILING, PREDRILL HOLES FOR NAILS WHERE NAILS TEND TO SPLIT WOOD.
4. SEE GENERAL NOTES SHEET FOR PLYWOOD INFORMATION. USE EXTERIOR GRADE PLYWOOD (OSB ACCEPTABLE AT INT. WALL ONLY)
5. FOUNDATION SILL PL'S AND ALL FRAMING MEMBERS RECEIVING EDGE NAILING FROM ABUTTING PANELS SHALL NOT BE LESS THAN A SINGLE 3x NOMINAL MEMBER. PLYWOOD JOINT AND SILL PL NAILING SHALL BE STAGGERED IN ALL CASES.
6. NAILS TO BE COMMON WIRE NAILS OR 0.148" DIA x 2 1/4" GUN NAILS EXCEPT AS NOTED.
7. PROVIDE A MINIMUM 2"x2"x3/16" PL WASHER ON EACH ANCHOR BOLT. PROVIDE A 3x P.T. DOUGLAS FIR SILL PL AT ALL SHEARWALLS.
8. WHERE PANELS ARE APPLIED ON BOTH FACES OF A WALL, PANEL JOINTS SHALL BE OFFSET TO FALL ON DIFFERENT FRAMING MEMBERS.
9. WHERE ROOF JOIST PERPENDICULAR TO SHEAR WALL PROVIDE SIMPSON H1 CLIP FROM ROOF JOIST TO DBL. PLATE IN ADDITION TO CLIP SHOWN ON SHEAR WALL SCHEDULE.

4 S1.1 SHEAR WALL SCHEDULE

N.T.S.

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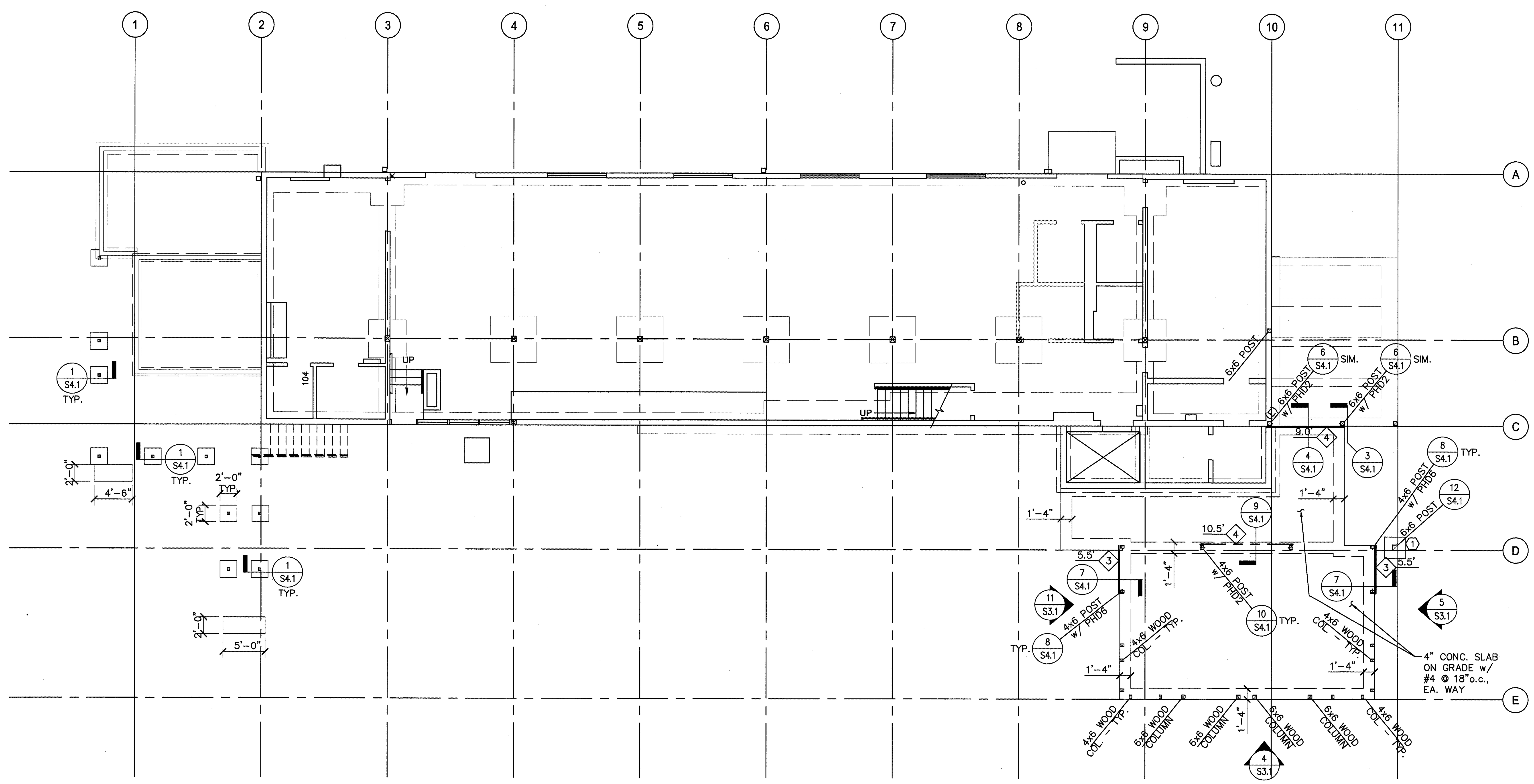
TYPICAL STRUCTURAL DETAILS

PROJECT NAME

DATE: 09.17.07
CHECK: ETD
DRAWN BY: DKB

PROJECT: 207037

S1.1



PAD FOOTING SCHEDULE									
MARK	SIZE			REINFORCING				REMARKS	REF. DETAIL
				TOP REINF.		BOTTOM REINF.			
	LENGTH	WIDTH	DEPTH	LONGIT.	TRANSVERSE	LONGIT.	TRANSVERSE		
⟨1⟩	2'-0"	2'-0"	12"	–	–	(3) #4	(3) #4		12 / S4.1

NOTE: CONCRETE SHALL HAVE A MIN. COMPRESSIVE STRENGTH OF f'c=3,000 PSI

LEGEND:

- MIN. LENGTH OF WALL (27')
- PLYWOOD (2)
- PLYWOOD BOTH SIDES WHERE OCCURS

⟨3⟩ DENOTES PLYWOOD SHEARWALL MARK SEE 4/S1.2 FOR SCHEDULE

⊠ WOOD POST – SEE PLAN FOR SIZE

STRUCTURAL REGISTERED PROFESSIONAL ENGINEER 15086 OREGON MAY 30, 1991 EDWIN T. DEAN

EXPIRATION DATE: 12-31-07

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Job # ND767.00

CONSULTANTS

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8815 SW O'MARA ST.
TIGARD, OREGON 97223

FOUNDATION PLAN

PROJECT NAME

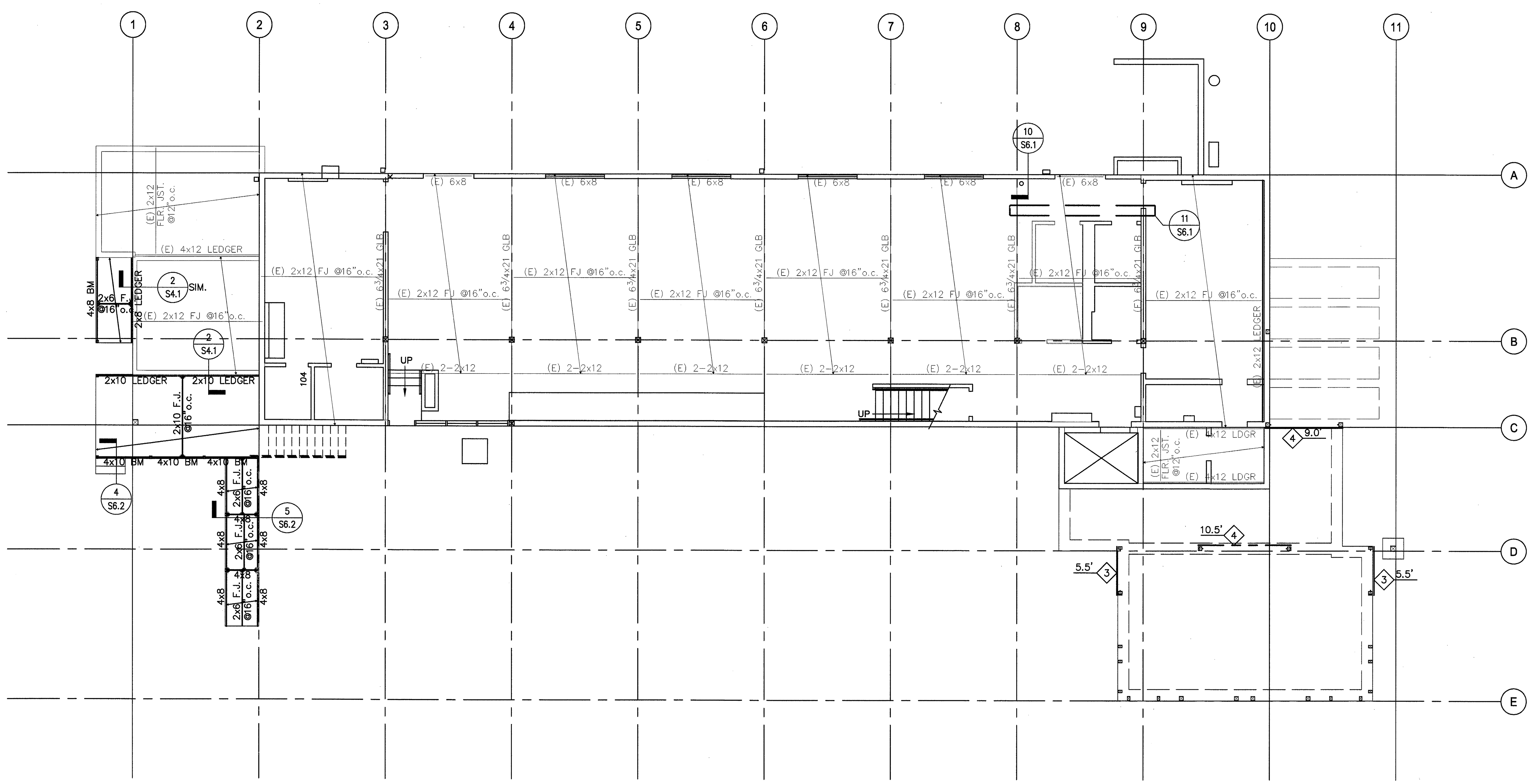
DATE: 09.17.07

CHECK: ETD

DRAWN BY: DKB

PROJECT: 207037

S2.1



LOADING DOCK FRAMING NOTES:

1) REFER TO I.B.C. TABLE 23-II-B-1 FOR NAILING NOT SPECIFICALLY CALLED OUT. ALL NAILS EXPOSED TO WEATHER SHALL BE HOT-DIP GALVANIZED, UNLESS STAINLESS STEEL IS REQUIRED PER THE NOTE BELOW

2) PRESSURE TREATMENT ON WOOD SHALL BE ACQ-C, ACQ-D (CARBONATE), CA-B, OR CBA-A WITH NO AMMONIA AND THE ACTUAL RETENTION LEVELS SHALL BE LESS THAN 0.40 PCF FOR ACQ, 0.41 PCF FOR CBA-A, OR 0.21 PCF FOR CA-B. IF AMMONIA IS USED AND/OR THE RETENTION LEVELS ARE HIGHER THAN THAT SPECIFIED, THEN STAINLESS STEEL CONNECTORS AND NAILS MUST BE USED THROUGHOUT. REFER TO SIMPSON'S GUIDELINES IN THE CURRENT SIMPSON CATALOG.

LEGEND:

3 27' — MIN. LENGTH OF WALL; PLYWOOD; 2 — PLYWOOD BOTH SIDES WHERE OCCURS — DENOTES PLYWOOD SHEARWALL MARK SEE 4/S1.2 FOR SCHEDULE

⊠ WOOD POST – SEE PLAN FOR SIZE

STRUCTURAL REGISTERED PROFESSIONAL ENGINEER 15,986 OREGON MAY 30, 1991 EDWIN T. DEAN

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SECOND FLOOR FRAMING PLAN

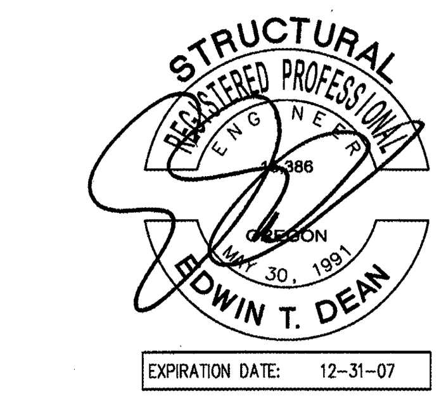
PROJECT NAME

DATE: 09.17.07

CHECK: ETD
DRAWN BY: DKB

PROJECT: 207037

S2.2



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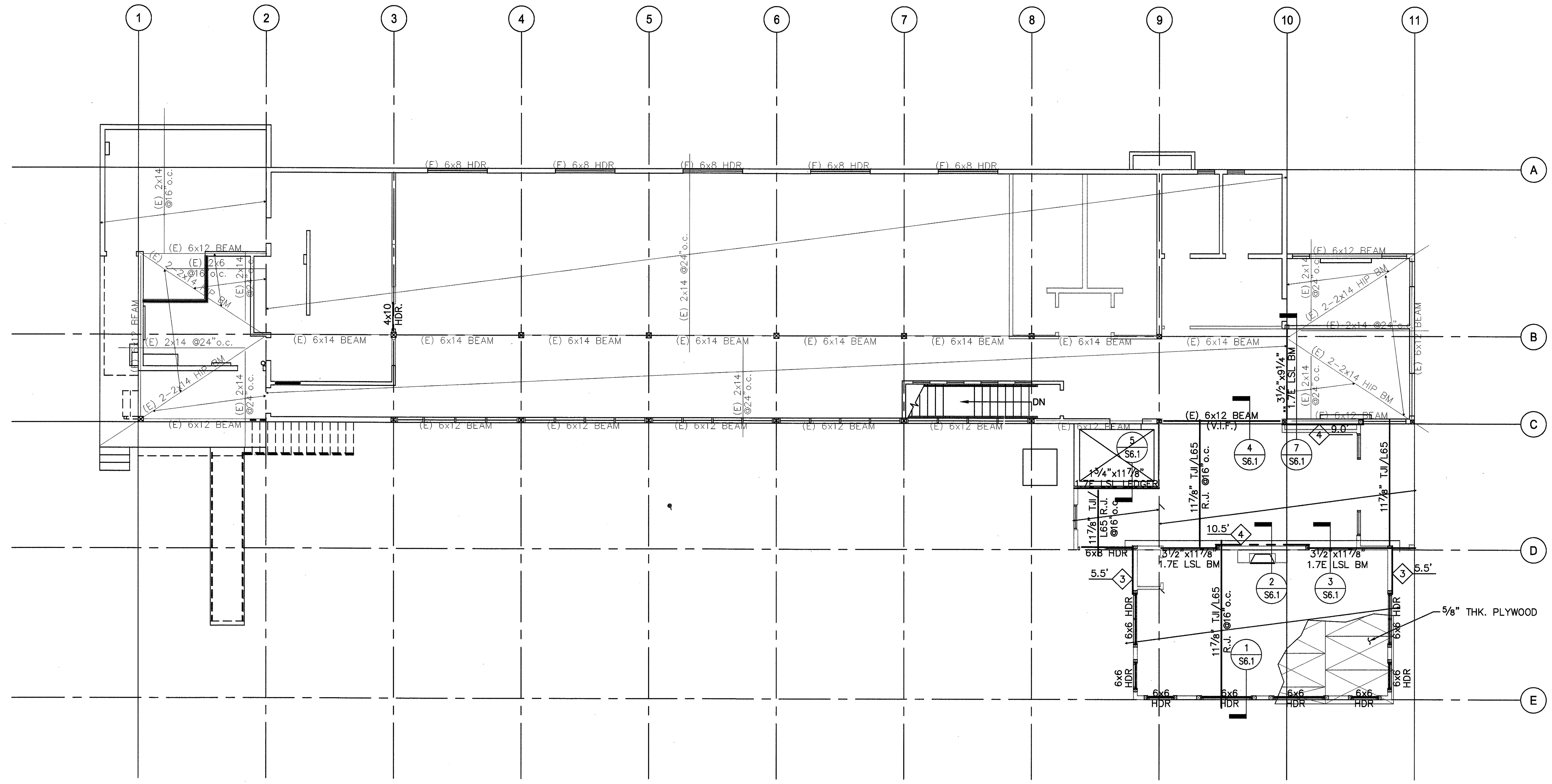

LEGEND:

- 3 / 27' / 2 — MIN. LENGTH OF WALL; PLYWOOD; PLYWOOD BOTH SIDES WHERE OCCURS — DENOTES PLYWOOD SHEARWALL MARK SEE 4/S1.2 FOR SCHEDULE
- ⊠ WOOD POST – SEE PLAN FOR SIZE

TIGARD SENIOR CENTER RENOVATION AND ADDITION
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ROOF FRAMING PLAN

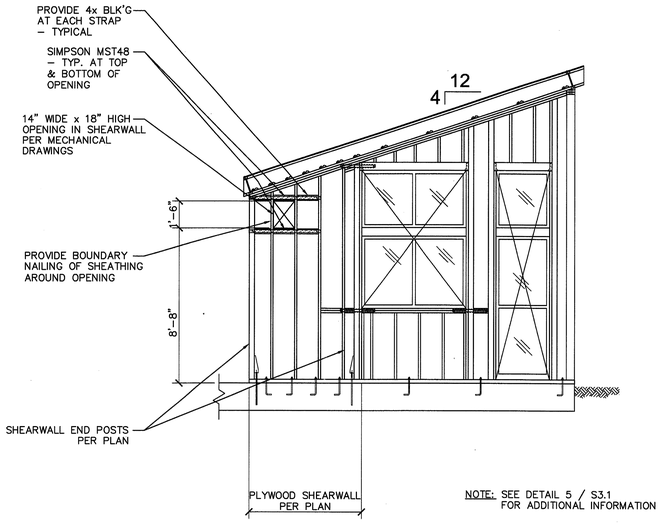
PROJECT NAME

DATE: 09.17.07

CHECK: ETD
DRAWN BY: DKB

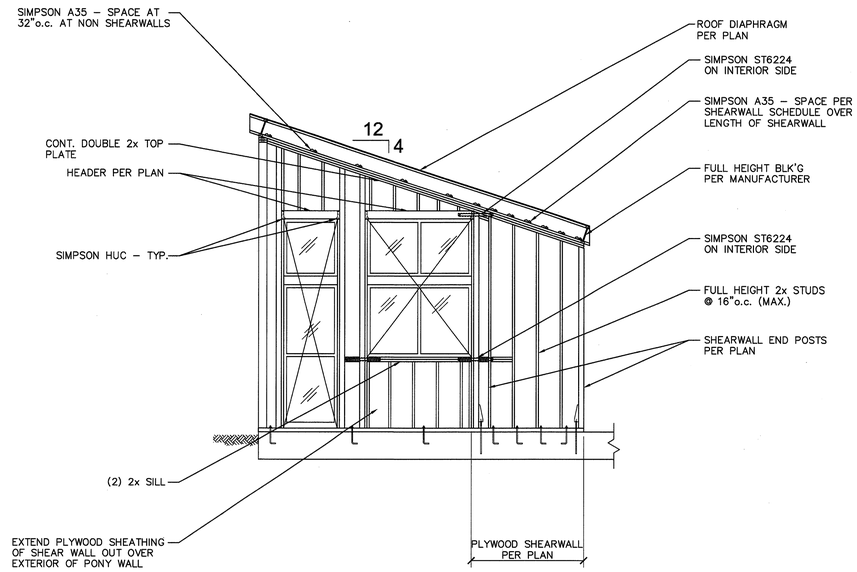
PROJECT: 207037

S2.3



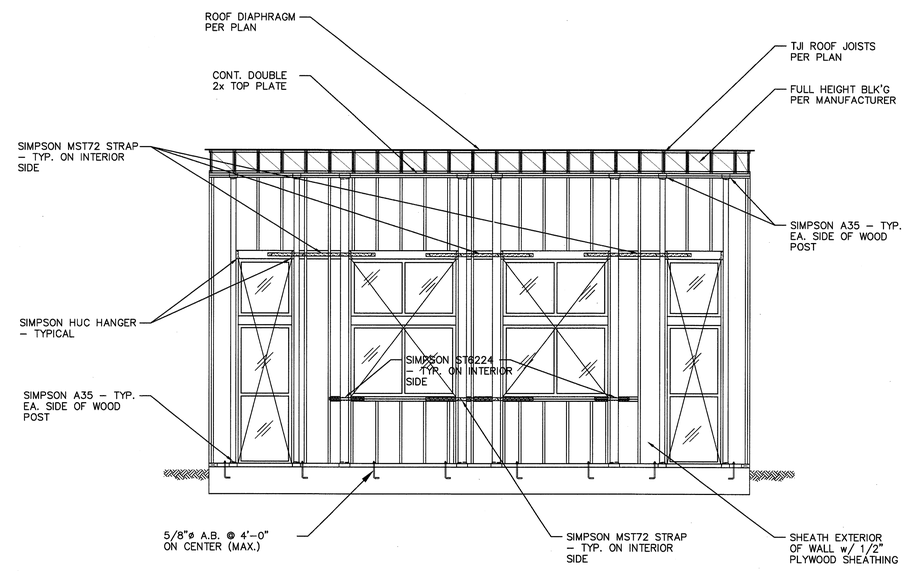
11 / S3.1 DETAIL

1/4"=1'-0"



5 / S3.1 DETAIL

1/4"=1'-0"



4 / S3.1 DETAIL

1/4"=1'-0"

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WALL ELEVATIONS

PROJECT NAME

DATE: 09.17.07
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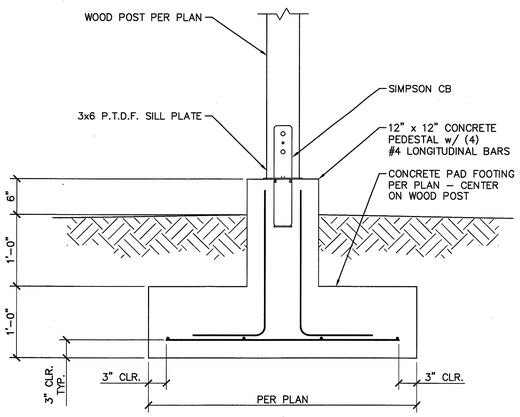
DRAWN BY: DKB
PROJECT: 207037

S3.1



12 / S4.1 DETAIL
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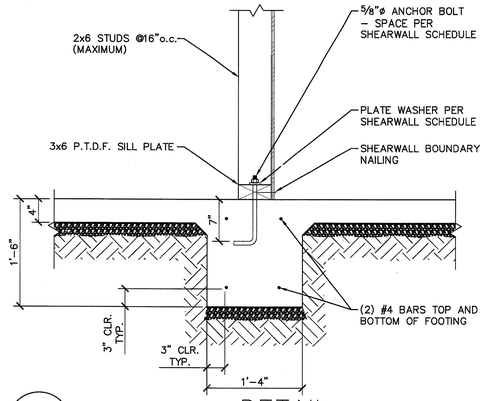

9 / S4.1 DETAIL
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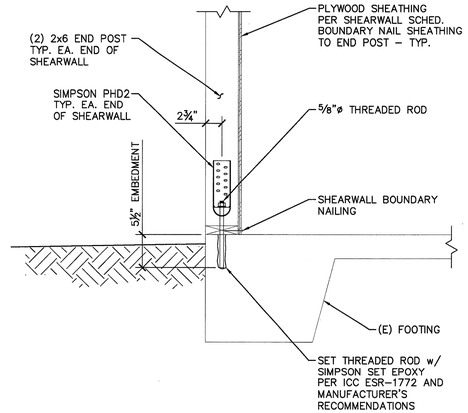

6 / S4.1 DETAIL
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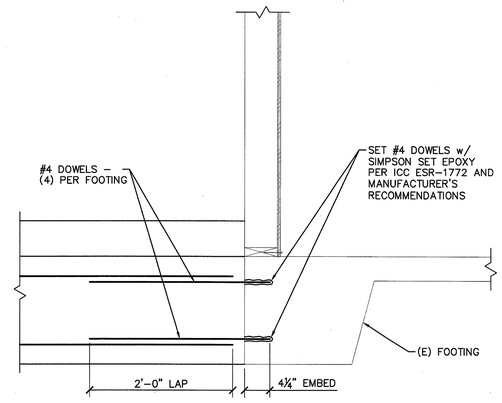
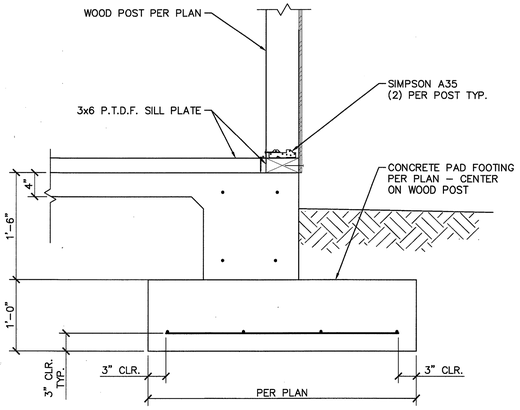


3 / S4.1 DETAIL
1"=1'-0"

A



11 / S4.1 DETAIL
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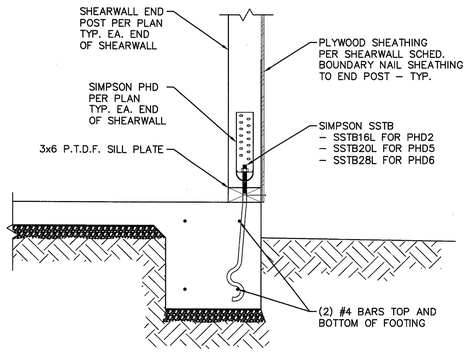

8 / S4.1 DETAIL
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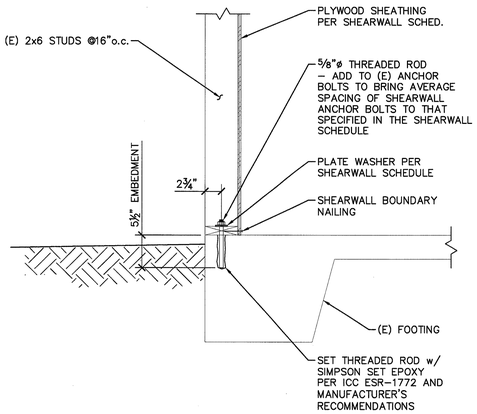

5 / S4.1 DETAIL
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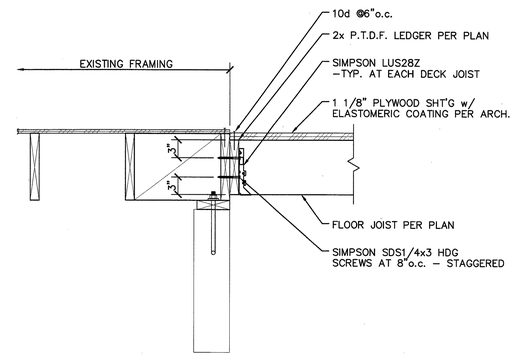
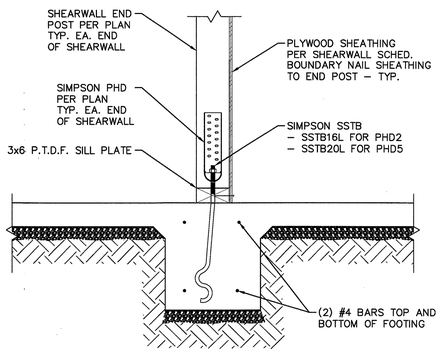


2 / S4.1 DETAIL
1"=1'-0"

B



10 / S4.1 DETAIL
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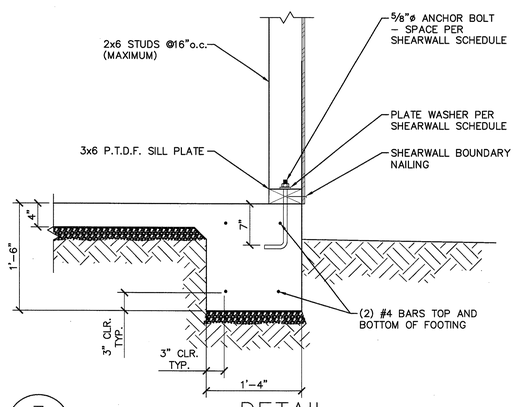

7 / S4.1 DETAIL
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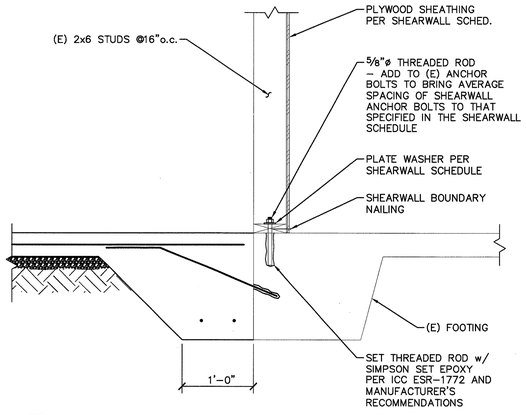

4 / S4.1 DETAIL
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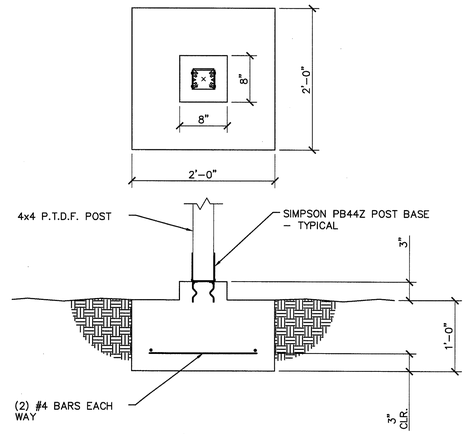

1 / S4.1 TYPICAL PAD FOOTING
1"=1'-0"

C

1 2 3 4

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STRUCTURAL DETAILS

PROJECT NAME

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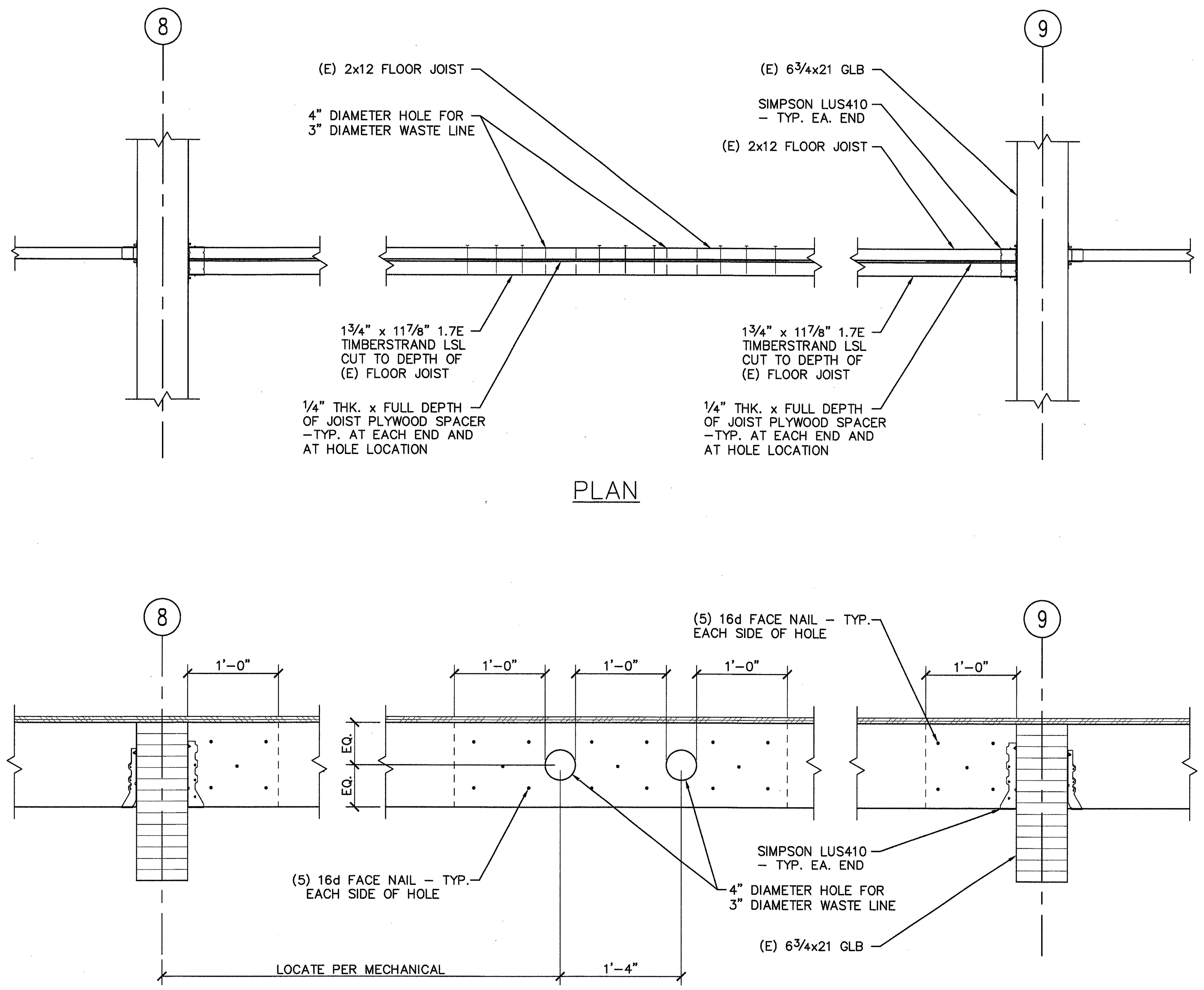
PROJECT: 207037

S4.1



11 / S6.1 DETAIL
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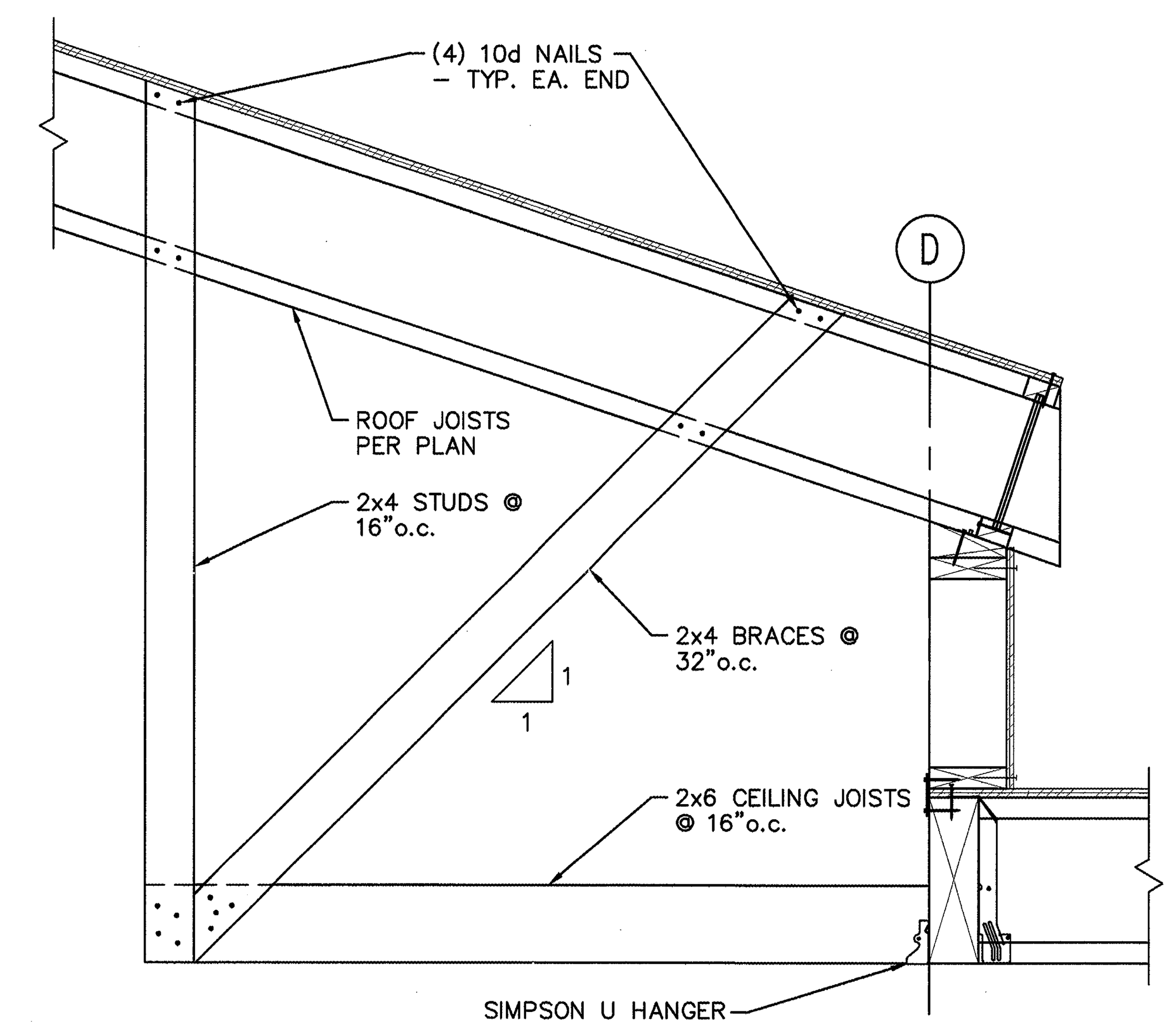

6 / S6.1 DETAIL
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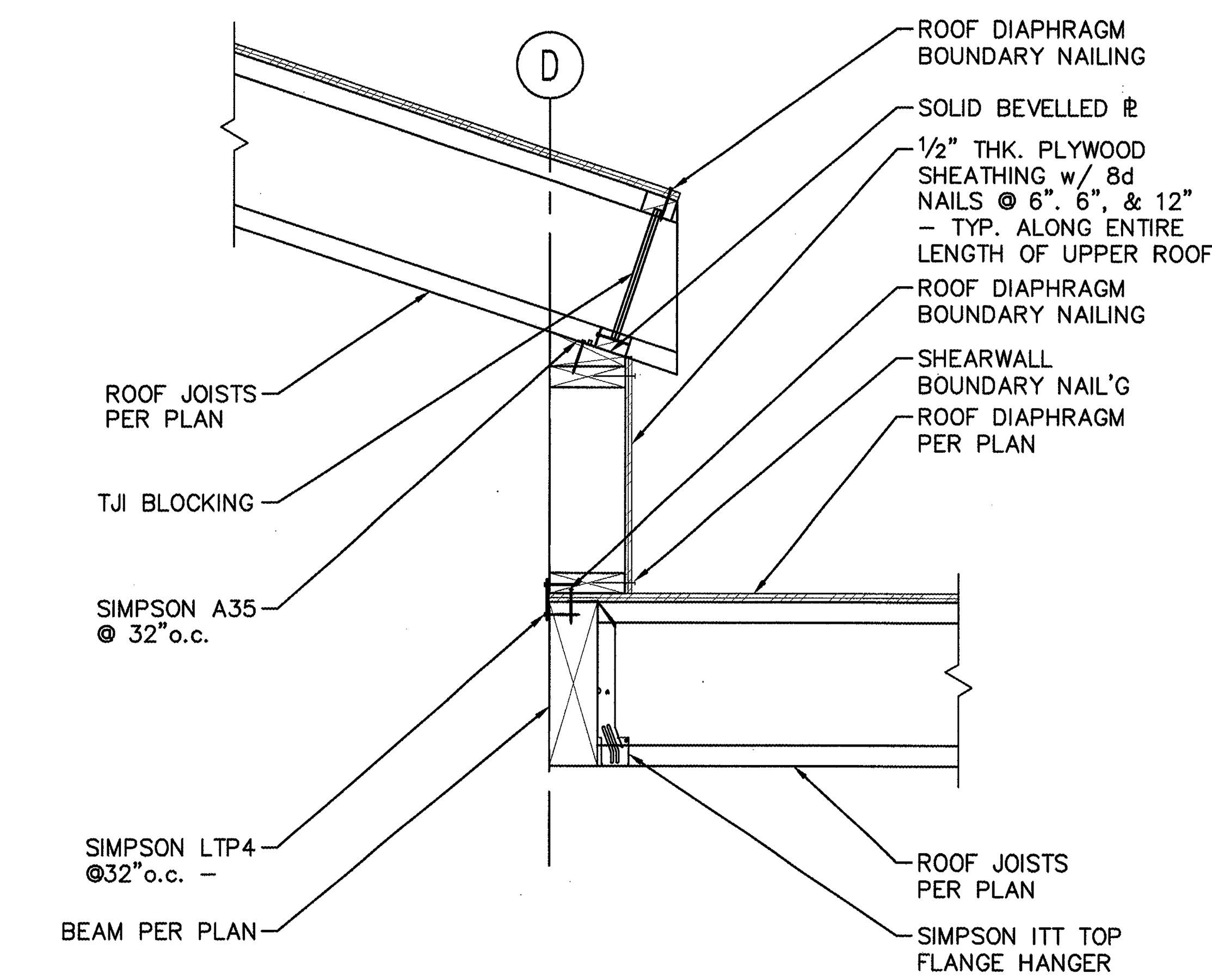

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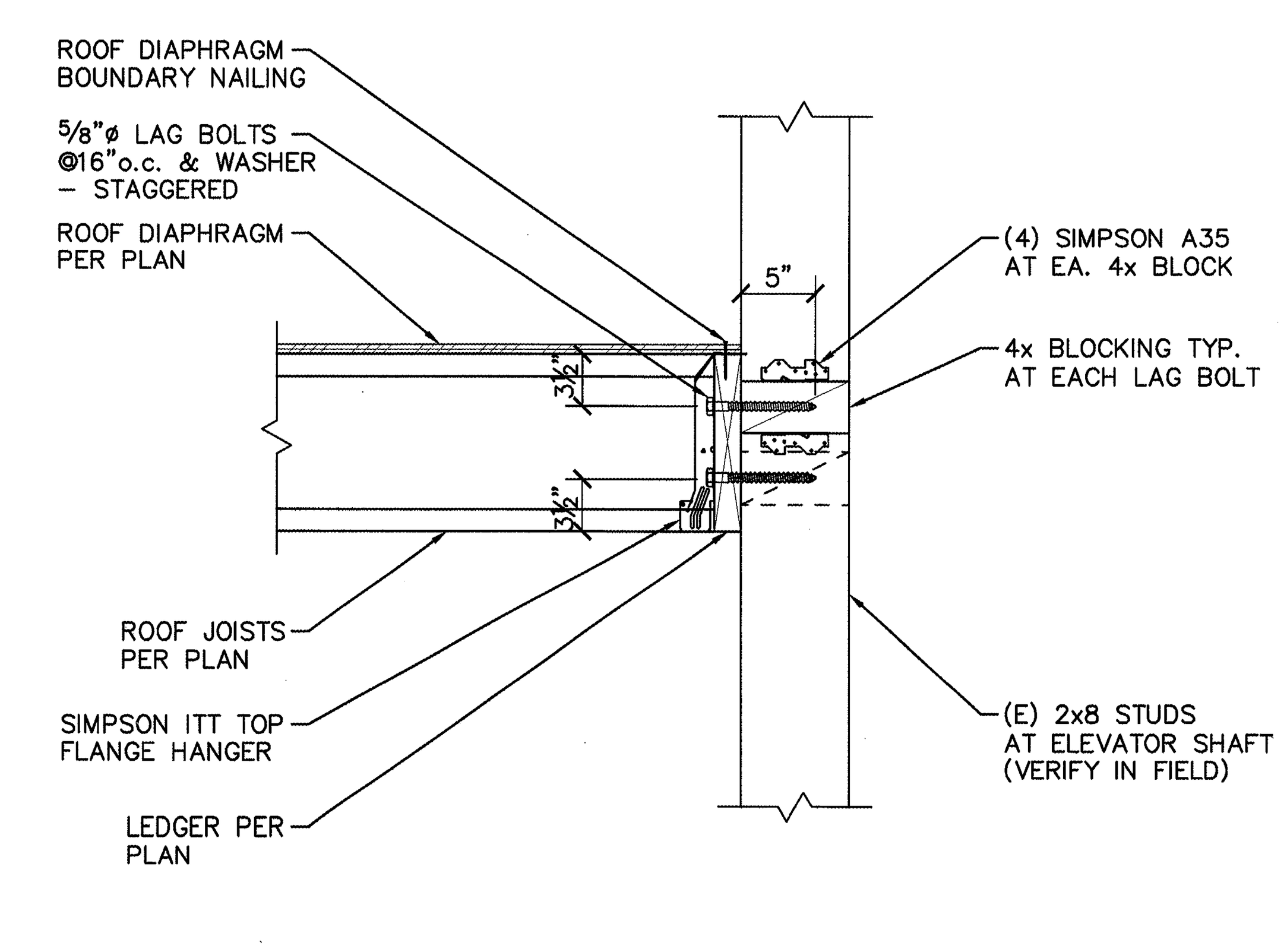

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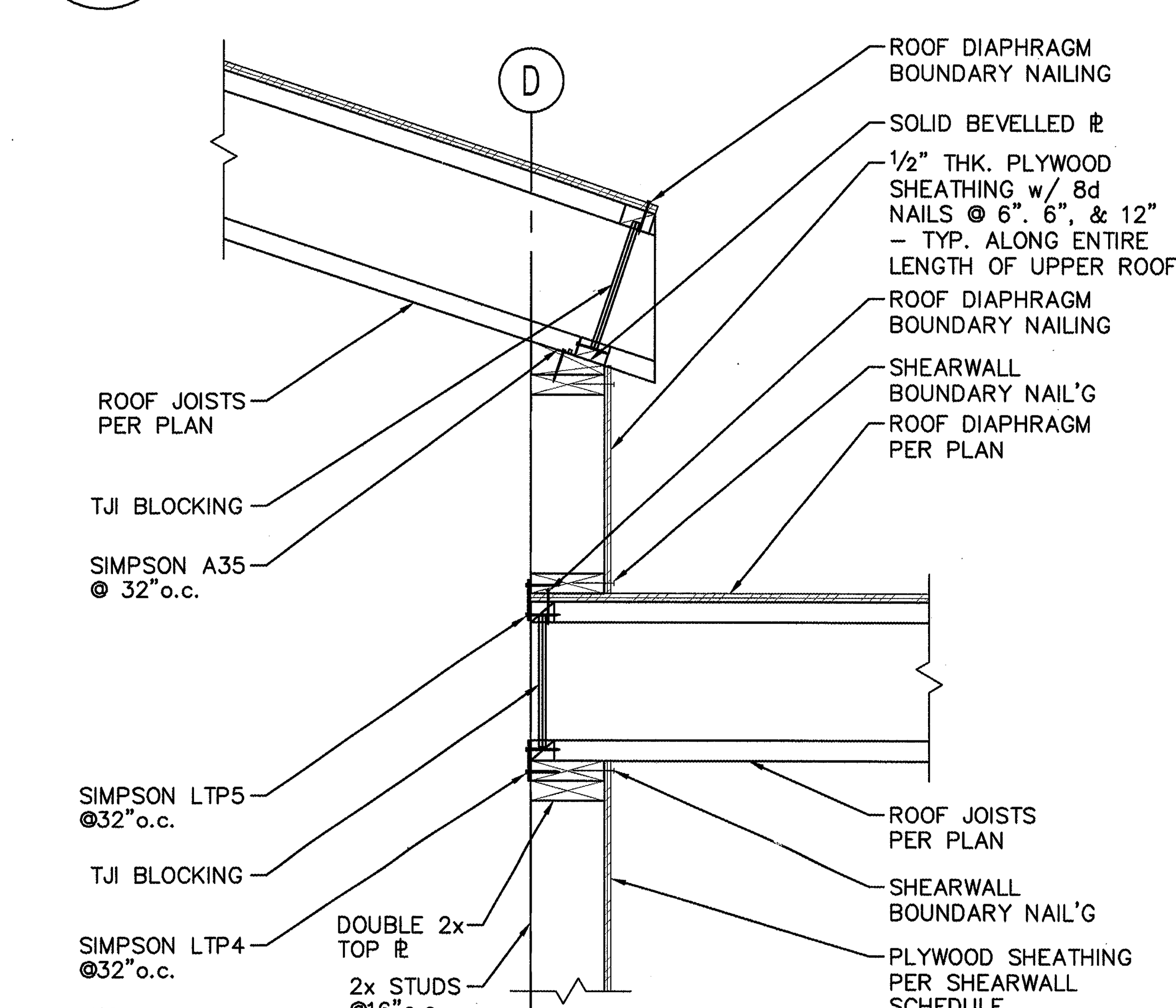

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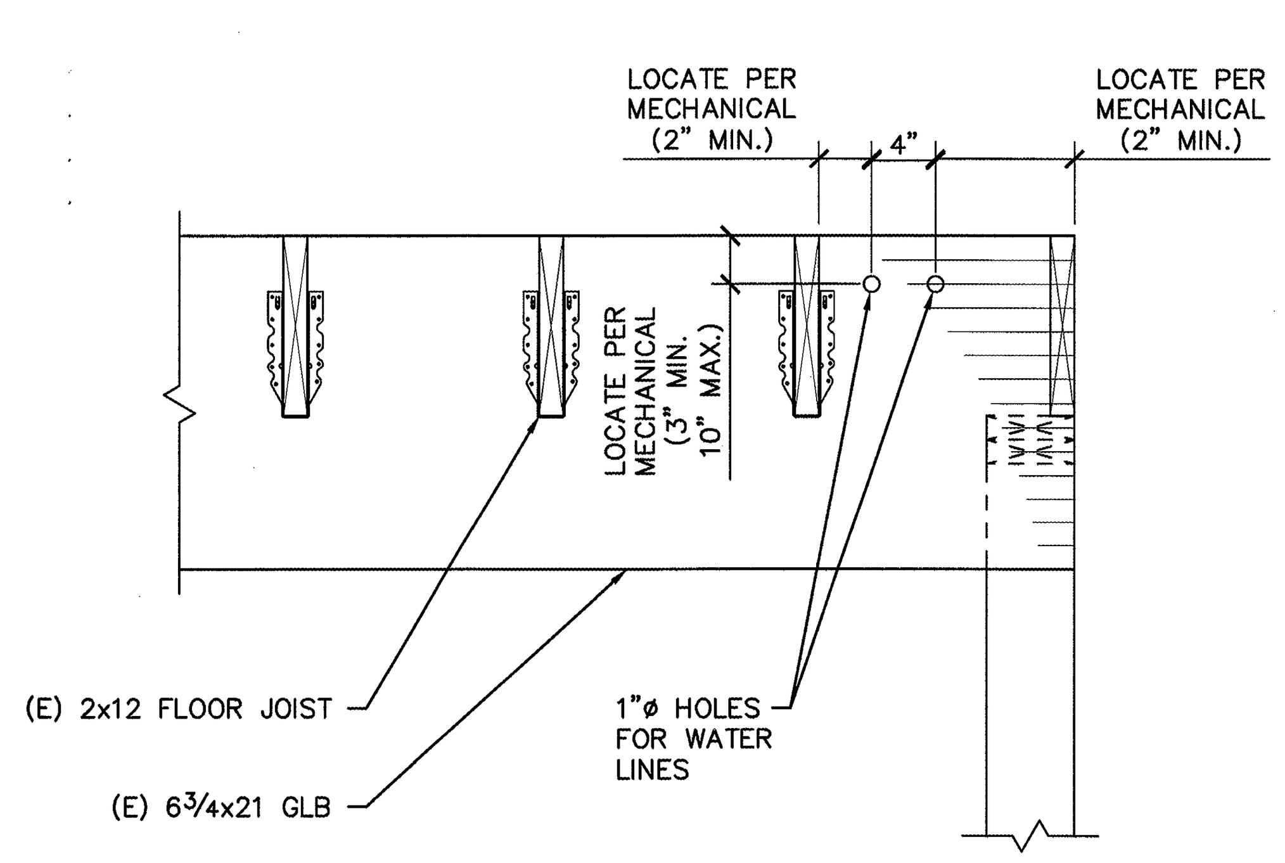

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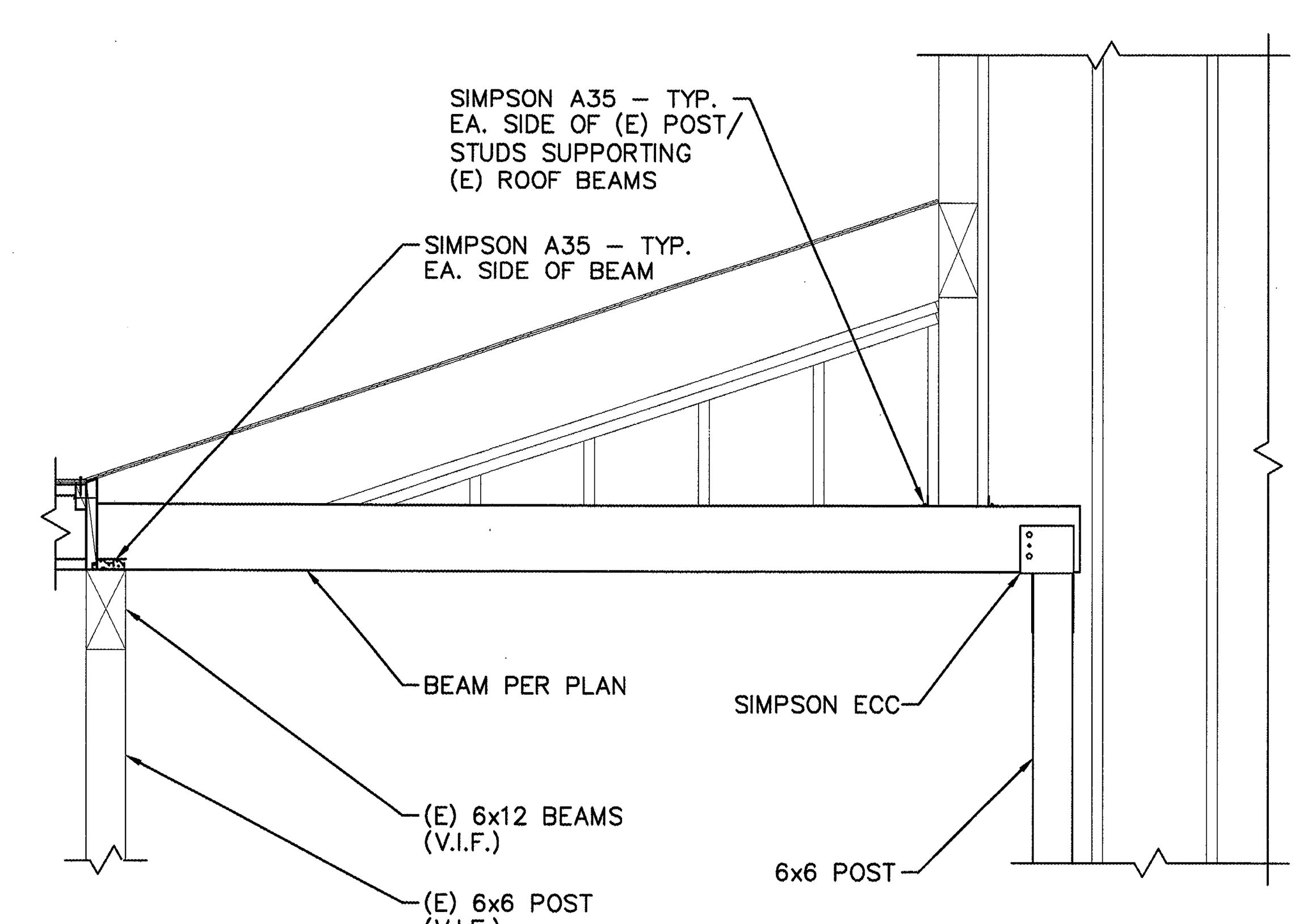

7 / S6.1 DETAIL
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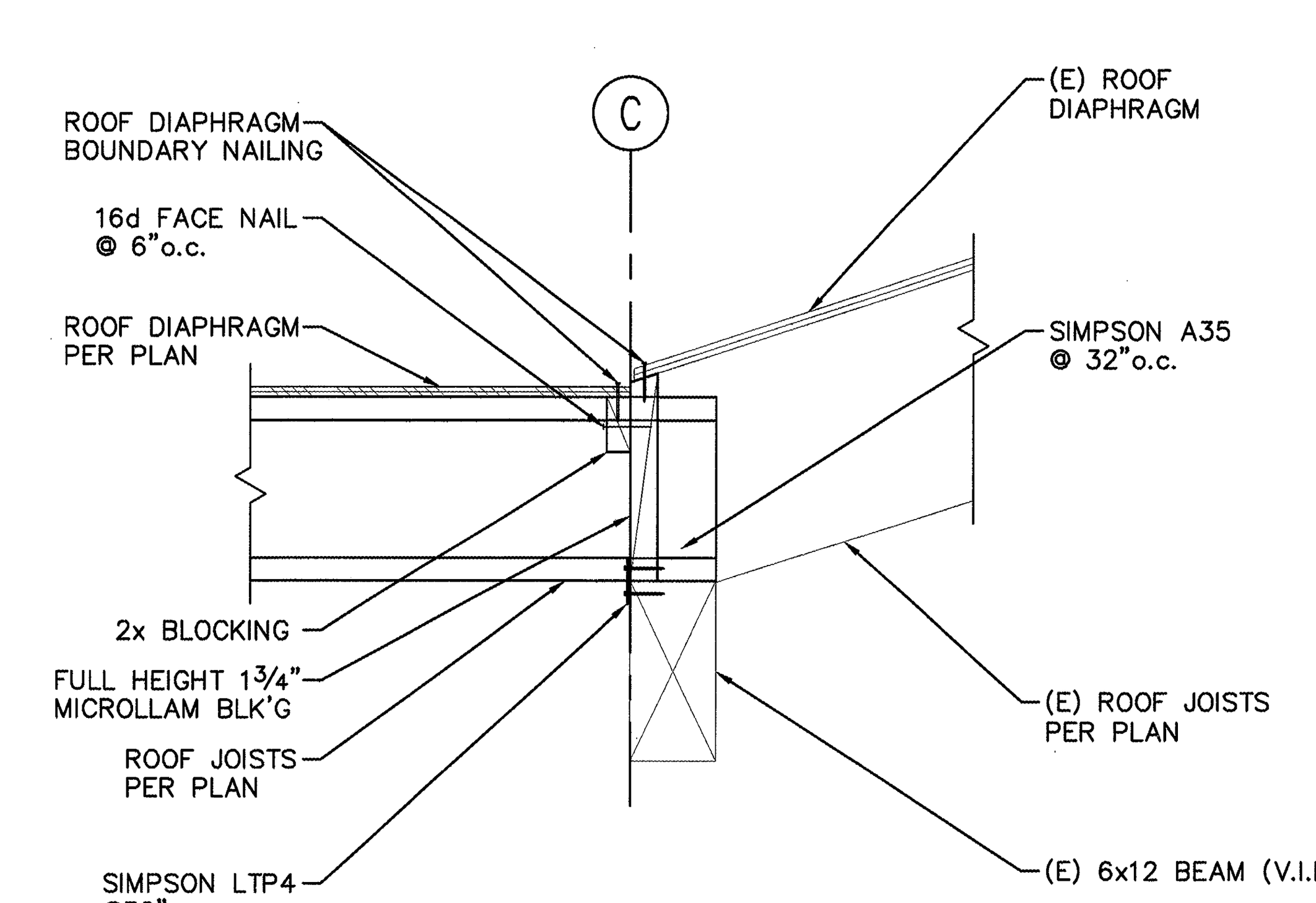
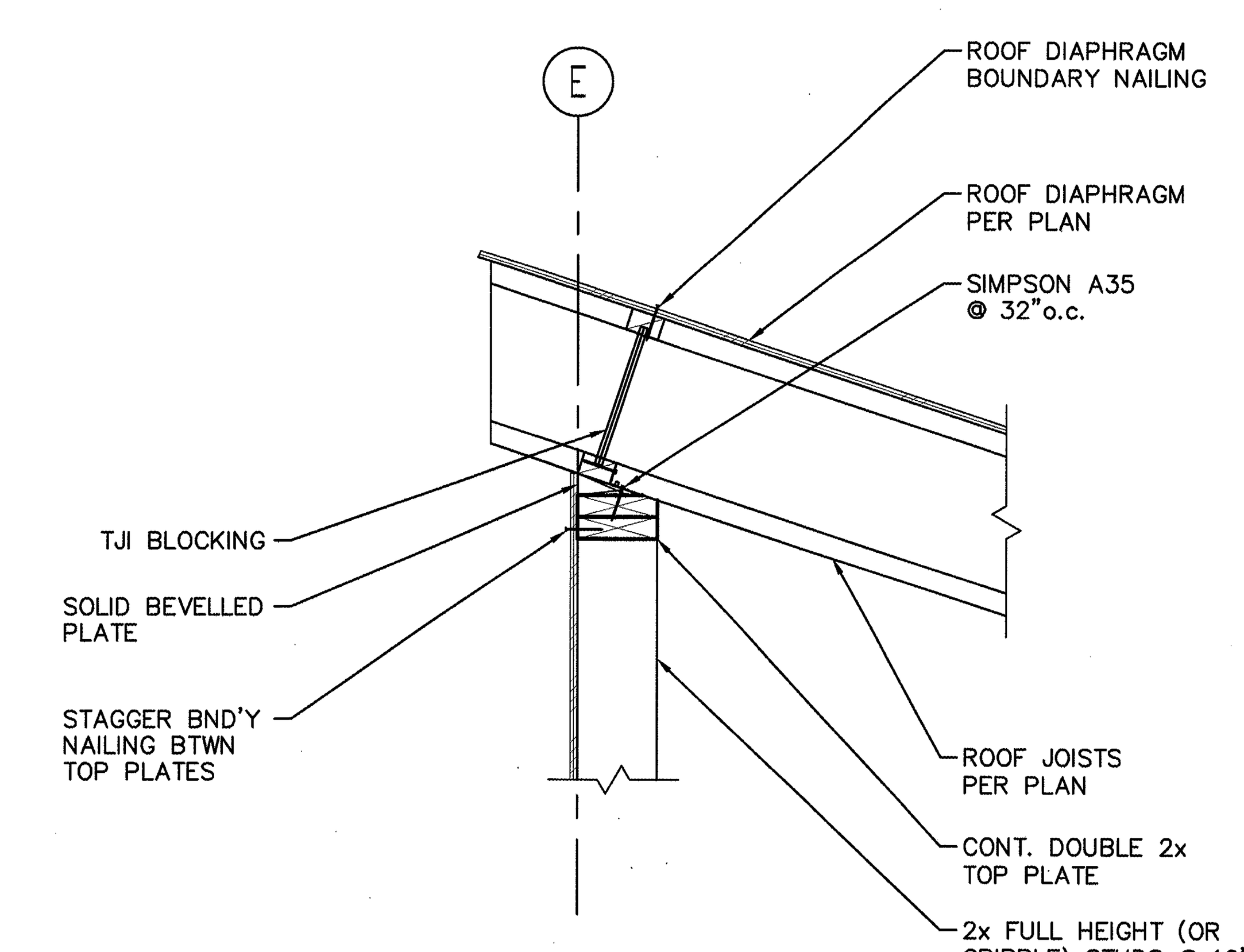


4 / S6.1 DETAIL
1"=1'–0"



1 / S6.1 DETAIL
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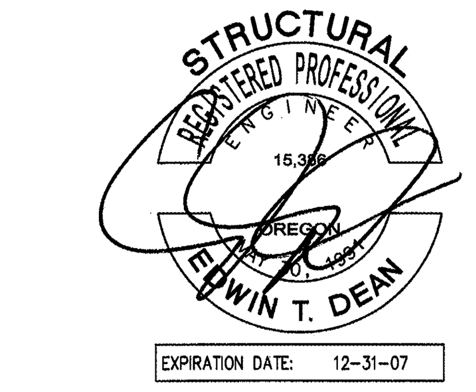

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STRUCTURAL DETAILS

PROJECT NAME

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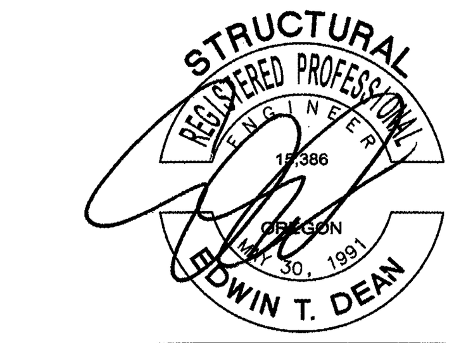
S6.1



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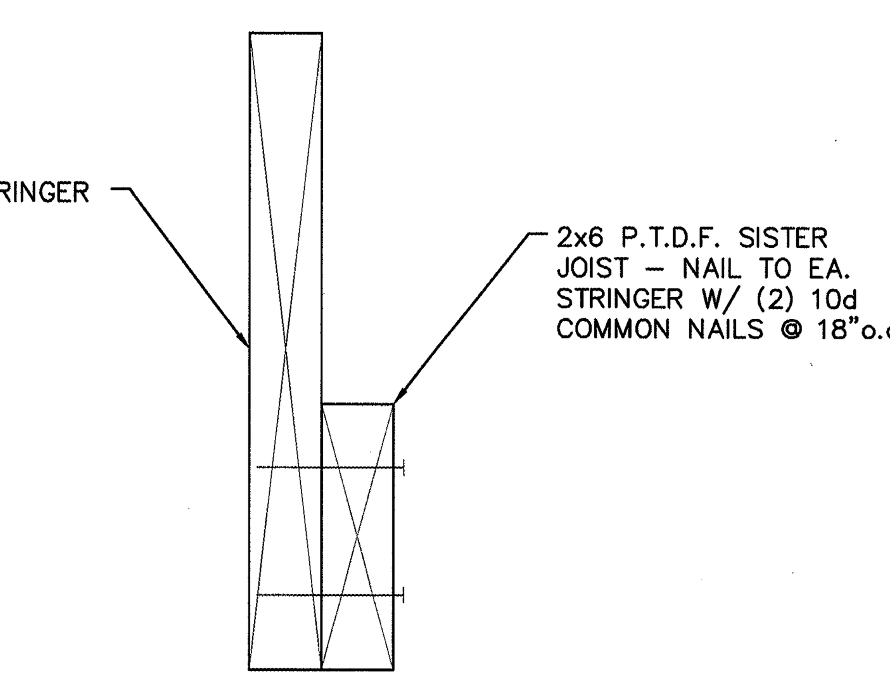
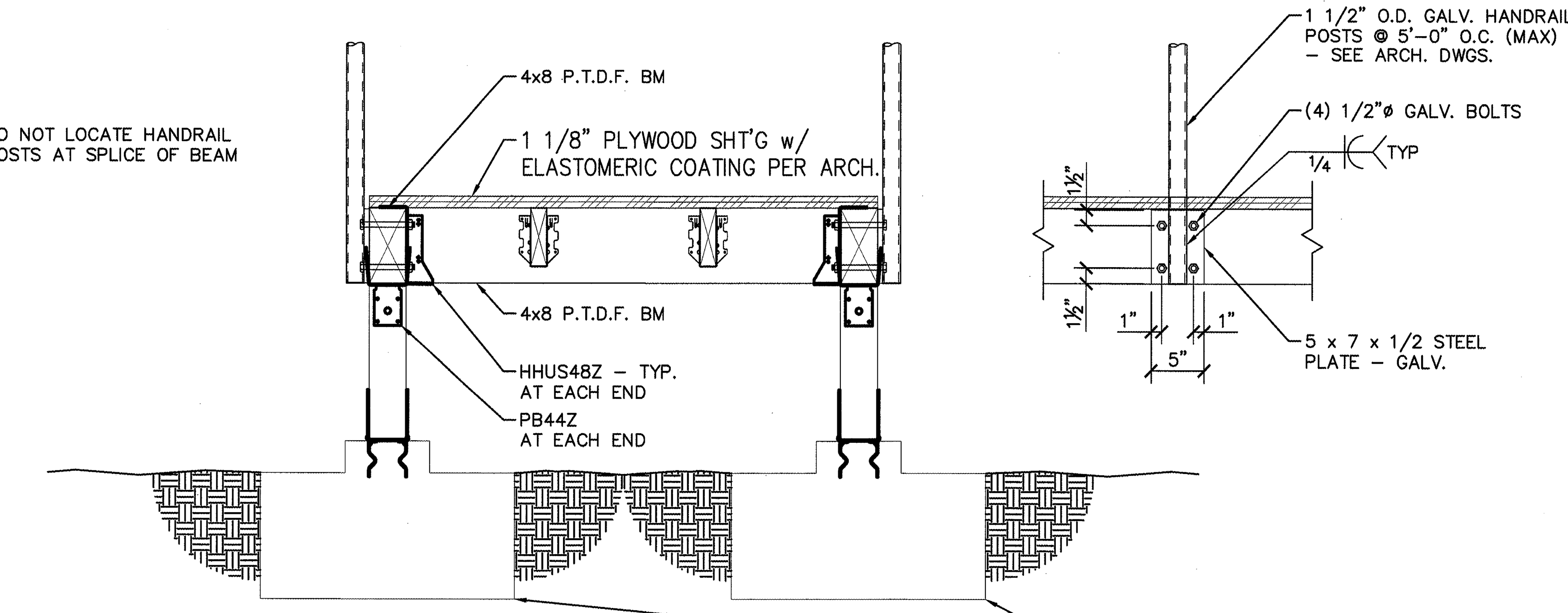
STRUCTURAL DETAILS

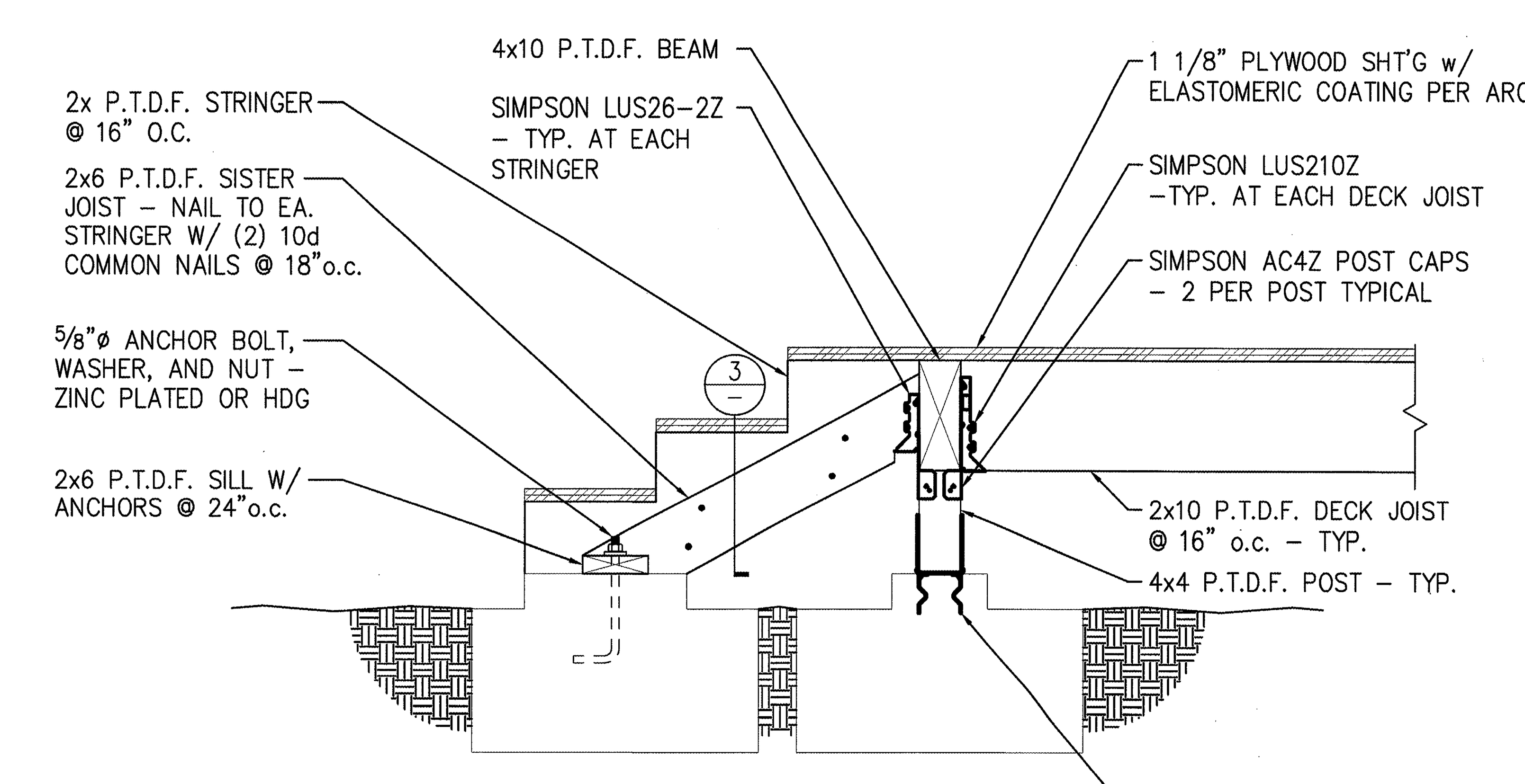


3 / S6.2 DETAIL
3"=1'–0"

NOTE: DO NOT LOCATE HANDRAIL POSTS AT SPLICE OF BEAM



5 / S6.2 DETAIL
1"=1'–0"



4 / S6.2 DECK STAIR FRAMING
1"=1'–0"

PROJECT NAME

DATE: 09.17.07
CHECK: ETD
DRAWN BY: DKB
PROJECT: 207037

S6.2

A
B
C 1
2
3
4